

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
2.30" Single-Digit	BS-AD11RD	BS-CD11RD	GaAsP/Red	655	40	320	40	200	6.8	8.0	6.0	SD-57
	BS-AD15RD	BS-CD15RD	GaP/ Bright Red	700	90	160	15	50	8.8	10.0	8.0	
	BS-AD15RE	BS-CD15RE										
	BS-AD12RD	BS-CD12RD	GaP/ Green	568	30	310	30	150	8.8	10.0	12.0	
	BS-AD13RD	BS-CD13RD	GaAsP/GaP/ Yellow	585	35	310	30	150	8.4	10.0	10.0	
	BS-AD14RD	BS-CD14RD	GaAsP/GaP/ Hi-Eff.Red	635	45	310	30	150	8.0	10.0	12.0	
			GaAsP/GaP/ Orange									
BS-AD16RD	BS-CD16RD	GaAlAs/ SH Super Red	660	20	310	30	150	6.8	10.0	18.0		
BS-AD1FRD	BS-CD1FRD	GaAlAs/ DDH Super Red	660	20	310	30	150	8.0	10.0	25.0		
2.30" Alpha-Numeric Single-Digit	BS-AD21RD	BS-CD21RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-58
	BS-AD25RD	BS-CD25RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BS-AD22RD	BS-CD22RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BS-AD23RD	BS-CD23RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
			GaAsP/GaP/ Hi-Eff.Red									
	BS-AD24RD	BS-CD24RD	GaAsP/GaP/ Orange	635	45	160	30	150	4.4	5.0	5.0	
GaAlAs/ SH Super Red												
BS-AD26RD	BS-CD26RD	GaAlAs/ DDH Super Red	660	20	160	30	150	3.4	5.0	10.0		
BS-AD2FRD	BS-CD2FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		

SD-57 **BS- $\frac{A}{C}$ D1xRD**

SD-58 **BS- $\frac{A}{C}$ D2xRD**

NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is $\pm 0.25\text{mm}(\pm 0.010")$.
 3.Specifications are subject to change without notice. 4.NP:No Pin. 5.NC:No Connect.

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	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)		
									Typ.	Max.			
0.28" Single Digit	BS-A281ND	BS-C281ND	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-01	
	BS-A285ND	BS-C285ND	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BS-A285NE	BS-C285NE		700	90	40	15	50	2.2	2.5	1.2		
	BS-A282ND	BS-C282ND	GaP/ Green	568	30	80	30	150	2.2	2.5	2.8		
	BS-A283ND	BS-C283ND	GaAsP/GaP/ Hi-Eff.Red	635	35	80	30	150	2.1	2.5	2.2		
	BS-A284ND	BS-C284ND											GaAsP/GaP/ Orange
	BS-A286ND	BS-C286ND	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	5.0		
	BS-A28DND	BS-C28DND	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	6.0		
	BS-A281RD-A	BS-C281RD-A	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-02	
	BS-A285RD-A	BS-C285RD-A	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BS-A285RE-A	BS-C285RE-A		700	90	40	15	50	2.2	2.5	1.2		
	BS-A282RD-A	BS-C282RD-A	GaP/ Green	568	30	80	30	150	2.2	2.5	2.8		
	BS-A283RD-A	BS-C283RD-A	GaAsP/GaP/ Hi-Eff.Red	635	35	80	30	150	2.1	2.5	2.2		
	BS-A284RD-A	BS-C284RD-A											GaAsP/GaP/ Orange
	BS-A286RD-A	BS-C286RD-A	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	5.0		
	BS-A28DRD-A	BS-C28DRD-A	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	6.0		
	BS-A281RD-B	BS-C281RD-B	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-03	
	BS-A285RD-B	BS-C285RD-B	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BS-A285RE-B	BS-C285RE-B		700	90	40	15	50	2.2	2.5	1.2		
	BS-A282RD-B	BS-C282RD-B	GaP/ Green	568	30	80	30	150	2.2	2.5	2.8		
	BS-A283RD-B	BS-C283RD-B	GaAsP/GaP/ Hi-Eff.Red	635	35	80	30	150	2.1	2.5	2.2		
	BS-A284RD-B	BS-C284RD-B											GaAsP/GaP/ Orange
	BS-A286RD-B	BS-C286RD-B	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	5.0		
	BS-A28DRD-B	BS-C28DRD-B	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	6.0		
	0.3" Single-Digit	BS-A301RD	BS-C301RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-04
		BS-A305RD	BS-C305RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
		BS-A305RE	BS-C305RE		700	90	40	15	50	2.2	2.5	1.2	
		BS-A302RD	BS-C302RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
BS-A303RD		BS-C303RD	GaAsP/GaP/ Hi-Eff.Red	635	35	80	30	150	2.1	2.5	2.0		
BS-A304RD		BS-C304RD										GaAsP/GaP/ Orange	
BS-A306RD		BS-C306RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
BS-A30DRD		BS-C30DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0		
BS-A301RD-A		BS-C301RD-A	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-05	
BS-A305RD-A		BS-C305RD-A	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
BS-A305RE-A		BS-C305RE-A		700	90	40	15	50	2.2	2.5	1.2		
BS-A302RD-A		BS-C302RD-A	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
BS-A303RD-A		BS-C303RD-A	GaAsP/GaP/ Hi-Eff.Red	635	35	80	30	150	2.1	2.5	2.0		
BS-A304RD-A		BS-C304RD-A											GaAsP/GaP/ Orange
BS-A306RD-A	BS-C306RD-A	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0			
BS-A30DRD-A	BS-C30DRD-A	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0			
0.3" Overflow Single-Digit	BF-U301RD		GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-06	
	BF-U305RD		GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BF-U305RE			700	90	40	15	50	2.2	2.5	1.2		
	BF-U302RD		GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BF-U303RD		GaAsP/GaP/ Hi-Eff.Red	635	35	80	30	150	2.1	2.5	2.0		
	BF-U304RD												GaAsP/GaP/ Orange
	BF-U306RD		GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
	BF-U30DRD		GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0		

SD-01 BS-A _C 28xND	SD-02 BS-A _C 28RD-A
<p>BS-A28xxx</p> <p>BS-C28xxx</p>	<p>BS-A28RD-A</p> <p>BS-C28RD-A</p>
SD-03 BS-A _C 28xRD-B	SD-04 BS-A _C 30xRD
<p>BS-A28xRD-B</p> <p>BS-C28xRD-B</p>	<p>BS-A30xxx</p> <p>BS-C30xxx</p>
SD-05 BS-A _C 30xRD-A	SD-06 BF-U30xRD
<p>BS-A30xRD-A</p> <p>BS-C30xRD-A</p>	<p>BF-U30xRD</p>

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Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
0.30" Single-Digit	BS-A311RD	BS-C311RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-07
	BS-A315RD	BS-C315RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
	BS-A315RE	BS-C315RE		700	90	40	15	50	2.2	2.5	1.2	
	BS-A312RD	BS-C312RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A313RD	BS-C313RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A314RD	BS-C314RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BS-A316RD	BS-C316RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0	
	BS-A31DRD	BS-C31DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0	
	BS-A311RD-A	BS-C311RD-A	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-08
	BS-A315RD-A	BS-C315RD-A	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
	BS-A315RE-A	BS-C315RE-A		700	90	40	15	50	2.2	2.5	1.2	
	BS-A312RD-A	BS-C312RD-A	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A313RD-A	BS-C313RD-A	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A314RD-A	BS-C314RD-A	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BS-A316RD-A	BS-C316RD-A	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0	
	BS-A31DRD-A	BS-C31DRD-A	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0	
	BS-A311RD-B	BS-C311RD-B	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-09
	BS-A315RD-B	BS-C315RD-B	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
	BS-A315RE-B	BS-C315RE-B		700	90	40	15	50	2.2	2.5	1.2	
	BS-A312RD-B	BS-C312RD-B	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A313RD-B	BS-C313RD-B	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A314RD-B	BS-C314RD-B	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BS-A316RD-B	BS-C316RD-B	GaAlAs/ SH Super Red	660	20	60	30	150	1.7	2.5	6.0	
	BS-A31DRD-B	BS-C31DRD-B	GaAlAs/ DH Super Red	660	20	60	30	150	1.7	2.5	7.0	
	BS-A331RD	BS-C331RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-10
BS-A335RD	BS-C335RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
BS-A335RE	BS-C335RE		700	90	40	15	50	2.2	2.5	1.2		
BS-A332RD	BS-C332RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
BS-A333RD	BS-C333RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
BS-A334RD	BS-C334RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
		GaAsP/GaP/ Orange										
BS-A336RD	BS-C336RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
BS-A33DRD	BS-C33DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0		
0.31" Single-Digit	BS-A361RD	BS-C361RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-11
	BS-A365RD	BS-C365RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
	BS-A365RE	BS-C365RE		700	90	40	15	50	2.2	2.5	1.2	
	BS-A362RD	BS-C362RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A363RD	BS-C363RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A364RD	BS-C364RD	GaAsP/GaP/ Hi-Eff.Red	635	45	100	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BS-A366RD	BS-C366RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0	
BS-A36DRD	BS-C36DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0		
0.36" Single-Digit	BS-A321RD	BS-C321RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-12
	BS-A325RD	BS-C325RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
	BS-A325RE	BS-C325RE		700	90	40	15	50	2.2	2.5	1.2	
	BS-A322RD	BS-C322RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A323RD	BS-C323RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A324RD	BS-C324RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BS-A36RD	BS-C326RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0	
BS-A32DRD	BS-C32DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0		

<p>SD-07 BS-A_C31xRD</p> <p>NP: 3,5,10,11.</p>	<p>SD-08 BS-A_C31xRD-A</p> <p>NP: 3,5,10,11.</p>
<p>SD-09 BS-A_C31xRD-B</p> <p>NP: 3,5,10,11.</p>	<p>SD-10 BS-A_C33xRD</p> <p>NP: 1,7,8,14 NP: 4,5,6,12.</p>
<p>SD-11 BS-A_C36xRD</p> <p>NP: 1,6</p>	<p>SD-12 BS-A_C32xRD</p> <p>NP: 1,6</p>

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									Typ.	Max.			
0.36" Overflow Single-Digit	BF-A321RD	BF-C321RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-13	
	BF-A325RD	BF-C325RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BF-A325RE	BF-C325RE											
	BF-A322RD	BF-C322RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BF-A323RD	BF-C323RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BF-A324RD	BF-C324RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BF-A326RD	BF-C326RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
BF-A32DRD	BF-C32DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0			
0.39" Single-Digit	BS-A341RD	BS-C341RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-14	
	BS-A345RD	BS-C345RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BS-A345RE	BS-C345RE											
	BS-A342RD	BS-C342RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BS-A343RD	BS-C343RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BS-A344RD	BS-C344RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BS-A346RD	BS-C346RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
	BS-A34DRD	BS-C34DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0		
	0.39" Alpha-Numeric Displays	BS-A341RD-A	BS-C341RD-A	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-15
		BS-A345RD-A	BS-C345RD-A	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2	
		BS-A345RE-A	BS-C345RE-A										
BS-A342RD-A		BS-C342RD-A	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
BS-A343RD-A		BS-C343RD-A	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
BS-A344RD-A		BS-C344RD-A	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
BS-A346RD-A		BS-C346RD-A	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
BS-A34DRD-A	BS-C34DRD-A	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0			
0.39" Alpha-Numeric Displays	BS-A311RD-B	BS-C311RD-B	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-16	
	BS-A315RD-B	BS-C315RD-B	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BS-A315RE-B	BS-C315RE-B											
	BS-A312RD-B	BS-C312RD-B	GaP/ Green	568	30	80	30	150	2.2	2.5	2.8		
	BS-A313RD-B	BS-C313RD-B	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2		
	BS-A314RD-B	BS-C314RD-B	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	2.8		
			GaAsP/GaP/ Orange										
BS-A316RD-B	BS-C316RD-B	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	5.0			
BS-A31DRD-B	BS-C31DRD-B	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	10.0			
0.40" Single-Digit	BS-A401RD	BS-C401RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-17	
	BS-A405RD	BS-C405RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BS-A405RE	BS-C405RE											
	BS-A402RD	BS-C402RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BS-A403RD	BS-C403RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BS-A404RD	BS-C404RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BS-A406RD	BS-C406RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
BS-A40DRD	BS-C40DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0			
0.40" Overflow Single-Digit	BF-U401RD		GaAsP/Red	655	40	80	40	200	1.7	2.0	0.6	SD-18	
	BF-U405RD		GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.2		
	BF-U405RE												
	BF-U402RD		GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BF-U403RD		GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BF-U404RD		GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BF-U406RD		GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.0		
BF-U40DRD		GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.0			

SD-13 BF- $\frac{A}{C}$ 32xRD	SD-14 BS- $\frac{A}{C}$ 34xRD
<p>SD-13 BF-$\frac{A}{C}$ 32xRD</p> <p>Dimensions: PIN 1. 9.10(.360), 14.00(.551), 7.50(.295), $\varnothing 1.1(.043)$, 0.80(.031), 2.54(.100), 0.50(.020), 8.50(.335), 0.25(.010), 3.00(.118)MIN., 5.08(.200).</p> <p>Pinouts: BF-A32xRD (1.6), BF-C32xRD (1.6). NC: 4,5,10.</p>	<p>SD-14 BS-$\frac{A}{C}$ 34xRD</p> <p>Dimensions: PIN 1. 10.00(.390), 12.90(.508), 6.20(.244), 10°, 9.80(.386), $\varnothing 1.2(.047)$, 2.54(.100), 0.50(.020), 0.90(.035), 6.90(.272), 0.25(.010), 3.00(.118)MIN., 7.62(.300).</p> <p>Pinouts: BS-A34xRD (3.8), BS-C34xRD (3.8).</p>
<p>SD-15 BS-$\frac{A}{C}$ 34xRD-A</p> <p>Dimensions: PIN 1. 10.00(.390), 12.90(.508), 6.20(.244), 10°, 9.80(.386), $\varnothing 1.2(.047)$, 2.54(.100), 0.50(.020), 0.90(.035), 6.90(.272), 0.25(.010), 3.00(.118)MIN., 7.62(.300).</p> <p>Pinouts: BS-A34xRD-A (1.6), BS-C34xRD-A (1.6).</p>	<p>SD-16 BS-$\frac{A}{C}$ 34xRD-B</p> <p>Dimensions: PIN 1. 10.0(.390), 23.6(.929), 6.3(.248), 10°, 9.9(.389), $\varnothing 1.2(.047)$, 2.54(.10)x8=20.32(.80), 7.0(.276), 4.5(.177)TYP., 7.62(.300), $\varnothing 0.50(.020)$.</p> <p>Pinouts: BS-A34xRD-B (4.13, 1.7).</p>
<p>SD-17 BS-$\frac{A}{C}$ 40xRD</p> <p>Dimensions: PIN 1. 10.16(.400), 18.70(.736), 5.40(.213), 8°, 9.80(.386), $\varnothing 1.4(.055)$, 2.54(.100), 0.50(.020), 5.10(.201), 3.00(.118)MIN., 7.62(.30), 7.62(.300).</p> <p>Pinouts: BS-A40xxx (3.14), BS-C40xxx (4.12). NP: 3,5,10,11.</p>	<p>SD-18 BF-U40xRD</p> <p>Dimensions: PIN 1. 10.10(.400), 18.70(.736), 8°, 9.80(.386), $\varnothing 1.4(.055)$, 2.54(.100), 0.50(.020), 0.60(.024), 7.80(.307), 3.00(.118)MIN., 7.62(.300).</p> <p>Pinouts: BF-U40xRD (NP: 2,9).</p>

NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is $\pm 0.25\text{mm}(.010\text{'})$.
 3.Specifications are subject to change without notice.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
0.43" Single-Digit	BS-A411RD	BS-C411RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.7	SD-19
	BS-A415RD	BS-C415RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BS-A415RE	BS-C415RE										
	BS-A412RD	BS-C412RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.5	
	BS-A413RD	BS-C413RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5	
	BS-A414RD	BS-C414RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.5	
			GaAsP/GaP/ Orange									
	BS-A416RD	BS-C416RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.5	
BS-A41DRD	BS-C41DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.5		
0.43" Overflow Single-Digit	BF-U411RD		GaAsP/Red	655	40	80	40	200	1.7	2.0	0.7	SD-20
	BF-U415RD		GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BF-U415RE											
	BF-U412RD		GaP/ Green	568	30	80	30	150	2.2	2.5	3.5	
	BF-U413RD		GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5	
	BF-U414RD		GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.5	
			GaAsP/GaP/ Orange									
	BF-U416RD		GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.5	
BF-U41DRD		GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.5		
0.50" Single-Digit	BS-A501RD	BS-C501RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-21
	BS-A505RD	BS-C505RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BS-A505RE	BS-C505RE										
	BS-A502RD	BS-C502RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A503RD	BS-C503RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A504RD	BS-C504RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BS-A506RD	BS-C506RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0	
BS-A50DRD	BS-C50DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0		
0.50" Overflow Single-Digit	BF-A501RD	BF-C501RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-22
	BF-A505RD	BF-C505RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BF-A505RE	BF-C505RE										
	BF-A502RD	BF-C502RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BF-A503RD	BF-C503RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BF-A504RD	BF-C504RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
	BF-A506RD	BF-C506RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0	
BF-A50DRD	BF-C50DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0		
0.50" Single-Digit	BS-A521RD	BS-C521RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.7	SD-23
	BS-A525RD	BS-C525RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BS-A525RE	BS-C525RE										
	BS-A522RD	BS-C522RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.5	
	BS-A523RD	BS-C523RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5	
	BS-A524RD	BS-C524RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.5	
			GaAsP/GaP/ Orange									
	BS-A526RD	BS-C526RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.5	
BS-A52DRD	BS-C52DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.5		
0.50" Overflow Single-Digit	BF-A521RD	BF-C521RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.7	SD-24
	BF-A525RD	BF-C525RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BF-A525RE	BF-C525RE										
	BF-A522RD	BF-C522RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.5	
	BF-A523RD	BF-C523RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5	
	BF-A524RD	BF-C524RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.5	
			GaAsP/GaP/ Orange									
	BF-A526RD	BF-C526RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.5	
BF-A52DRD	BF-C52DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.5		

SD-19 BS-A _C 41xRD	SD-20 BF-U41xRD
SD-21 BS-A _C 50xRD	SD-22 BF-A _C 50xRD
SD-23 BS-A _C 52xRD	SD-24 BF-A _C 52xRD

NOTES: 1.All Dimensions are in millimeters(inches).
 3.Specifications are subject to change without notice.

2.Tolerance is $\pm 0.25\text{mm}(.010\text{'})$.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.	
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)		
									Typ.	Max.			
0.50" Alpha-Numeric Displays	BS-A561RD	BS-C561RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.7	SD-25	
	BS-A565RD	BS-C565RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5		
	BS-A565RE	BS-C565RE											
	BS-A562RD	BS-C562RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.5		
	BS-A563RD	BS-C563RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5		
	BS-A564RD	BS-C564RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.5		
			GaAsP/GaP/ Orange										
	BS-A566RD	BS-C566RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	6.5		
	BS-A56DRD	BS-C56DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.5		
	BS-A561RD-A	BS-C561RD-A	GaAsP/Red	655	40	80	40	200	1.7	2.0	0.7		SD-26
	BS-A565RD-A	BS-C565RD-A	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5		
	BS-A565RE-A	BS-C565RE-A											
	BS-A562RD-A	BS-C562RD-A	GaP/ Green	568	30	80	30	150	2.2	2.5	3.5		
	BS-A563RD-A	BS-C563RD-A	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5		
BS-A564RD-A	BS-C564RD-A	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.5			
		GaAsP/GaP/ Orange											
BS-A566RD-A	BS-C566RD-A	GaAlAs/ SH Super Red	660	20	60	30	150	1.7	2.5	6.5			
BS-A56DRD-A	BS-C56DRD-A	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	7.5			
0.52" Single-Digit	BS-A531RD	BS-C531RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-27	
	BS-A535RD	BS-C535RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5		
	BS-A535RE	BS-C535RE											
	BS-A532RD	BS-C532RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BS-A533RD	BS-C533RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BS-A534RD	BS-C534RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BS-A536RD	BS-C536RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0		
	BS-A53DRD	BS-C53DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0		
	BS-A541RD	BS-C541RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0		SD-28
	BS-A545RD	BS-C545RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5		
	BS-A545RE	BS-C545RE											
	BS-A542RD	BS-C542RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BS-A543RD	BS-C543RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
BS-A544RD	BS-C544RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0			
		GaAsP/GaP/ Orange											
BS-A546RD	BS-C546RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0			
BS-A54DRD	BS-C54DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0			
0.56" Single-Digit	BS-A511RD	BS-C511RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-29	
	BS-A515RD	BS-C515RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5		
	BS-A515RE	BS-C515RE											
	BS-A512RD	BS-C512RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BS-A513RD	BS-C513RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BS-A514RD	BS-C514RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BS-A516RD	BS-C516RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0		
BS-A51DRD	BS-C51DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0			
0.56" Overflow Single-Digit	BF-A511RD	BF-C511RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-30	
	BF-A515RD	BF-C515RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5		
	BF-A515RE	BF-C515RE											
	BF-A512RD	BF-C512RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0		
	BF-A513RD	BF-C513RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0		
	BF-A514RD	BF-C514RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0		
			GaAsP/GaP/ Orange										
	BF-A516RD	BF-C516RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0		
BF-A51DRD	BF-C51DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0			

SD-25 BS-A _C 56xRD	SD-26 BS-A _C 56xRD-A
SD-27 BS-A _C 53xRD	SD-28 BS-A _C 54xRD
SD-29 BS-A _C 51xRD	SD-30 BF-A _C 51xRD

NOTES: 1.All Dimensions are in millimeters(inches).
3.Specifications are subject to change without notice.

2.Tolerance is $\pm 0.25\text{mm}(.010")$.
4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
0.56" Single-Digit	BS-A551RD	BS-C551RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-31
	BS-A555RD	BS-C555RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BS-A555RE	BS-C555RE										
	BS-A552RD	BS-C552RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A553RD	BS-C553RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A554RD	BS-C554RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
BS-A556RD	BS-C556RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0		
BS-A55DRD	BS-C55DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0		
0.56" Single-Digit	BS-A551RD-B	BS-C551RD-B	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.0	SD-32
	BS-A555RD-B	BS-C555RD-B	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BS-A555RE-B	BS-C555RE-B										
	BS-A552RD-B	BS-C552RD-B	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A553RD-B	BS-C553RD-B	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A554RD-B	BS-C554RD-B	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
BS-A556RD-B	BS-C556RD-B	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0		
BS-A55DRD-B	BS-C55DRD-B	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.0		
0.60" Single-Digit	BS-A601RD	BS-C601RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.2	SD-33
	BS-A605RD	BS-C605RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.5	
	BS-A605RE	BS-C605RE										
	BS-A602RD	BS-C602RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A603RD	BS-C603RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.5	
	BS-A604RD	BS-C604RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
			GaAsP/GaP/ Orange									
BS-A606RD	BS-C606RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.0		
BS-A60DRD	BS-C60DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.5		
0.80" Single-Digit	BS-A811RD	BS-C811RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-34
	BS-A815RD	BS-C815RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BS-A815RE	BS-C815RE										
	BS-A812RD	BS-C812RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BS-A813RD	BS-C813RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A814RD	BS-C814RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BS-A816RD	BS-C816RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BS-A81FRD	BS-C81FRD	GaAlAs/ DDH Super Red	660	20	80	30	150	2.0	2.5	12.5		
0.80" Overflow Single-Digit	BF-U811RD		GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-35
	BF-U815RD		GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BF-U815RE											
	BF-U812RD		GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BF-U813RD		GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BF-U814RD		GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BF-U816RD		GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BF-U81DRD		GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	9.0		
0.80" Alpha-Numeric Single-Digit	BS-A821RD	BS-C821RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-36
	BS-A825RD	BS-C825RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BS-A825RE	BS-C825RE										
	BS-A822RD	BS-C822RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BS-A823RD	BS-C823RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A824RD	BS-C824RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BS-A826RD	BS-C826RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BS-A82DRD	BS-C82DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	9.0		

SD-31 BS-A _C 55xRD	SD-32 BS-A _C 55xRD-B
SD-33 BS-A _C 60xRD	SD-34 BS-A _C 81xRD
SD-35 BF-U81xRD	SD-36 BS-A _C 82xRD

NOTES: 1.All Dimensions are in millimeters(inches).
 3.Specifications are subject to change without notice.

2.Tolerance is $\pm 0.25\text{mm}(.010")$.
 4.NP: No Pin. 5.NC: No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
0.80" Alpha-Numeric Displays	BS-A831RD	BS-C831RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-37
	BS-A835RD	BS-C835RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BS-A835RE	BS-C835RE										
	BS-A832RD	BS-C832RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BS-A833RD	BS-C833RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A834RD	BS-C834RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BS-A836RD	BS-C836RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BS-A83DRD	BS-C83DRD	GaAlAs/ DH Super Red	660	20	80	30	150	1.7	2.5	8.5		
0.80" Single-Digit	BS-A841RD	BS-C841RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-38
	BS-A845RD	BS-C845RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BS-A845RE	BS-C845RE										
	BS-A842RD	BS-C842RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BS-A843RD	BS-C843RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A844RD	BS-C844RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BS-A846RD	BS-C846RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BS-A84FRD	BS-C84FRD	GaAlAs/ DDH Super Red	660	20	80	30	150	2.0	2.5	12.5		
0.80" Single-Digit	BS-A851RD	BS-C851RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-39
	BS-A855RD	BS-C855RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BS-A855RE	BS-C855RE										
	BS-A852RD	BS-C852RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BS-A853RD	BS-C853RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A854RD	BS-C854RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BS-A856RD	BS-C856RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BS-A85FRD	BS-C85FRD	GaAlAs/ DDH Super Red	660	20	80	30	150	2.0	2.5	12.5		
0.80" Single-Digit	BS-A861RD	BS-C861RD	GaAsP/Red	655	40	80	40	200	1.7	2.0	1.3	SD-40
	BS-A865RD	BS-C865RD	GaP/ Bright Red	700	90	40	15	50	2.2	2.5	1.6	
	BS-A865RE	BS-C865RE										
	BS-A862RD	BS-C862RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.2	
	BS-A863RD	BS-C863RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A864RD	BS-C864RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.2	
			GaAsP/GaP/ Orange									
BS-A866RD	BS-C866RD	GaAlAs/ SH Super Red	660	20	80	30	150	1.7	2.5	7.5		
BS-A86FRD	BS-C86FRD	GaAlAs/ DDH Super Red	660	20	80	30	150	2.0	2.5	12.5		
1.00" Single-Digit	BS-AA01RD	BS-CA01RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-41
	BS-AA05RD	BS-CA05RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BS-AA05RE	BS-CA05RE										
	BS-AA02RD	BS-CA02RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BS-AA03RD	BS-CA03RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
	BS-AA04RD	BS-CA04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	5.0	
			GaAsP/GaP/ Orange									
BS-AA06RD	BS-CA06RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0		
BS-AA0FRD	BS-CA0FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		
1.00" Single-Digit	BS-AA11RD	BS-CA11RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-42
	BS-AA15RD	BS-CA15RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BS-AA15RE	BS-CA15RE										
	BS-AA12RD	BS-CA12RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BS-AA13RD	BS-CA13RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
	BS-AA14RD	BS-CA14RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	5.0	
			GaAsP/GaP/ Orange									
BS-AA16RD	BS-CA16RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0		
BS-AA1FRD	BS-CA1FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		

<p>SD-37 BS-A_C83xRD</p> <p>Technical drawing showing dimensions and pinout for BS-A_C83xRD. Dimensions include 11.00(433) width, 20.32(.800) height, and 27.70(1.091) total height. Pin pitch is 2.54x8=20.32(.80). Pinout diagram shows 16 pins labeled A1-A2, B, C, D1, D2, E, F, G1, G2, K, L, M, N, P.</p>	<p>SD-38 BS-A_C84xRD</p> <p>Technical drawing showing dimensions and pinout for BS-A_C84xRD. Dimensions include 11.00(433) width, 20.40(.800) height, and 27.70(1.091) total height. Pin pitch is 2.54(100). Pinout diagram shows 16 pins labeled LDP, A, B, C, D, E, F, G, RDP.</p>
<p>SD-39 BS-A_C85xRD</p> <p>Technical drawing showing dimensions and pinout for BS-A_C85xRD. Dimensions include 11.60(457) width, 20.30(.800) height, and 25.00(.984) total height. Pin pitch is 2.54(100). Pinout diagram shows 16 pins labeled A, B, C, D, E, F, G, DP.</p>	<p>SD-40 BS-A_C86xRD</p> <p>Technical drawing showing dimensions and pinout for BS-A_C86xRD. Dimensions include 11.00(433) width, 20.00(.787) height, and 29.00(1.141) total height. Pin pitch is 2.54(100). Pinout diagram shows 16 pins labeled A, B, C, D, E, F, G, DP.</p>
<p>SD-41 BS-A_CA0xRD</p> <p>Technical drawing showing dimensions and pinout for BS-AA0xRD. Dimensions include 13.00(.512) width, 26.00(1.02) height, and 32.90(1.295) total height. Pin pitch is 2.54(100). Pinout diagram shows 16 pins labeled A, B, C, D, E, F, G, DP.</p>	<p>SD-42 BS-A_CA1xRD</p> <p>Technical drawing showing dimensions and pinout for BS-AA1xRD. Dimensions include 14.10(.555) width, 25.40(1.00) height, and 33.90(1.335) total height. Pin pitch is 2.54(100). Pinout diagram shows 16 pins labeled A, B, C, D, E, F, G, DP.</p>

NOTES: 1.All Dimensions are in millimeters(inches).
 3.Specifications are subject to change without notice.

2.Tolerance is $\pm 0.25\text{mm}(.010")$.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.	
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)		
									Typ.	Max.			
1.00" Alpha-Numeric Displays	BS-AA21RD	BS-CA21RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-43	
	BS-AA25RD	BS-CA25RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5		
	BS-AA25RE	BS-CA25RE		GaP/ Green	568	30	160	30	150	4.4	5.0		5.0
	BS-AA22RD	BS-CA22RD	GaAsP/GaP/ Yellow		585	35	160	30	150	4.2	5.0		4.0
	BS-AA23RD	BS-CA23RD		GaAsP/GaP/ Hi-Eff.Red GaAsP/GaP/ Orange	635	45	160	30	150	4.0	5.0		5.0
	BS-AA24RD	BS-CA24RD	GaAlAs/ SH Super Red		660	20	160	30	150	3.4	5.0		10.0
	BS-AA26RD	BS-CA26RD		GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0		15.0
BS-AA2FRD	BS-CA2FRD												
1.00" Single-Digit	BS-AA31RD	BS-CA31RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-44	
	BS-AA35RD	BS-CA35RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5		
	BS-AA35RE	BS-CA35RE		GaP/ Green	568	30	160	30	150	4.4	5.0		5.0
	BS-AA32RD	BS-CA32RD	GaAsP/GaP/ Yellow		585	35	160	30	150	4.2	5.0		4.0
	BS-AA33RD	BS-CA33RD		GaAsP/GaP/ Hi-Eff.Red GaAsP/GaP/ Orange	635	45	160	30	150	4.0	5.0		5.0
	BS-AA34RD	BS-CA34RD	GaAlAs/ SH Super Red		660	20	160	30	150	3.4	5.0		10.0
	BS-AA36RD	BS-CA36RD		GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0		15.0
	BS-AA3FRD	BS-CA3FRD											
	BS-AA41RD	BS-CA41RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5		SD-45
	BS-AA45RD	BS-CA45RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5		
	BS-AA45RE	BS-CA45RE		GaP/ Green	568	30	160	30	150	4.4	5.0		
	BS-AA42RD	BS-CA42RD	GaAsP/GaP/ Yellow		585	35	160	30	150	4.2	5.0		
	BS-AA43RD	BS-CA43RD		GaAsP/GaP/ Hi-Eff.Red GaAsP/GaP/ Orange	635	45	160	30	150	4.0	5.0		
	BS-AA44RD	BS-CA44RD	GaAlAs/ SH Super Red		660	20	160	30	150	3.4	5.0		
BS-AA46RD	BS-CA46RD	GaAlAs/ DDH Super Red		660	20	160	30	150	4.0	5.0	15.0		
BS-AA4FRD	BS-CA4FRD												
1.00" Alpha-Numeric Displays	BS-AA51RD	BS-CA51RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-46	
	BS-AA55RD	BS-CA55RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5		
	BS-AA55RE	BS-CA55RE		GaP/ Green	568	30	160	30	150	4.4	5.0		5.0
	BS-AA52RD	BS-CA52RD	GaAsP/GaP/ Yellow		585	35	160	30	150	4.2	5.0		4.0
	BS-AA53RD	BS-CA53RD		GaAsP/GaP/ Hi-Eff.Red GaAsP/GaP/ Orange	635	45	160	30	150	4.0	5.0		5.0
	BS-AA54RD	BS-CA54RD	GaAlAs/ SH Super Red		660	20	160	30	150	3.4	5.0		10.0
	BS-AA56RD	BS-CA56RD		GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0		15.0
	BS-AA5FRD	BS-CA5FRD											
1.20" Single-Digit	BS-AB11RD	BS-CB11RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-47	
	BS-AB15RD	BS-CB15RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5		
	BS-AB15RE	BS-CB15RE		GaP/ Green	568	30	160	30	150	4.4	5.0		5.0
	BS-AB12RD	BS-CB12RD	GaAsP/GaP/ Yellow		585	35	160	30	150	4.2	5.0		4.0
	BS-AB13RD	BS-CB13RD		GaAsP/GaP/ Hi-Eff.Red GaAsP/GaP/ Orange	635	45	160	30	150	4.0	5.0		5.0
	BS-AB14RD	BS-CB14RD	GaAlAs/ SH Super Red		660	20	160	30	150	3.4	5.0		10.0
	BS-AB16RD	BS-CB16RD		GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0		15.0
	BS-AB1FRD	BS-CB1FRD											
	BS-AB21RD	BS-CB21RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5		SD-48
	BS-AB25RD	BS-CB25RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5		
	BS-AB25RE	BS-CB25RE		GaP/ Green	568	30	160	30	150	4.4	5.0		
	BS-AB22RD	BS-CB22RD	GaAsP/GaP/ Yellow		585	35	160	30	150	4.2	5.0		
	BS-AB23RD	BS-CB23RD		GaAsP/GaP/ Hi-Eff.Red GaAsP/GaP/ Orange	635	45	160	30	150	4.0	5.0		
	BS-AB24RD	BS-CB24RD	GaAlAs/ SH Super Red		660	20	160	30	150	3.4	5.0		
BS-AB26RD	BS-CB26RD	GaAlAs/ DDH Super Red		660	20	160	30	150	4.0	5.0	15.0		
BS-AB2FRD	BS-CB2FRD												

SD-43 BS- ^A _C A2xRD	SD-44 BS- ^A _C A3xRD
<p>Technical drawing of SD-43 BS-^A_CA2xRD LED display. Dimensions include: 13.70(.539) width, 25.60(1.00) height, 22.80(.897) base width, 33.00(1.299) total height, 10° viewing angle, 2.54(.100) pin pitch, 5.08(.200) pin height, 2.54(.100) pin offset, 18.00(.708) base length, 8.80(.346) pin offset, 3.00(.118) MIN. pin offset, and Ø1.6(.063) hole diameter. Pin configurations include BS-AA2xRD (6,18) and BS-CA3xRD (4,11). Pin labels: DP, A1, A2, B, C, D1, D2, E, F, G1, G2, J, K, L, M, N, P. Pin numbers: 13, 2, 22, 16, 10, 14, 9, 4, 7, 19, 3, 24, 23, 15, 12, 11. NC: 1. NP: 5,8,17,20.</p>	<p>Technical drawing of SD-44 BS-^A_CA3xRD LED display. Dimensions include: 14.10(.555) width, 25.40(1.00) height, 24.00(.945) base width, 33.90(1.335) total height, 10° viewing angle, 2.54(.100) pin pitch, 5.08(.200) pin height, 2.54(.100) pin offset, 18.00(.708) base length, 8.90(.350) pin offset, 3.00(.118) MIN. pin offset, and Ø2.5(.098) hole diameter. Pin configurations include BS-AA3xRD (4,11) and BS-CA3xRD (4,11). Pin labels: A, B, C, D, E, F, G, DP. Pin numbers: 9, 8, 5, 2, 1, 12, 14, 6. NP: 3,7,10,13.</p>
SD-45 BS- ^A _C A4xRD	SD-46 BS- ^A _C A5xRD
<p>Technical drawing of SD-45 BS-^A_CA4xRD LED display. Dimensions include: 14.70(.579) width, 25.4(1.00) height, 22.86(.900) base width, 33.00(1.299) total height, 10° viewing angle, 2.54x6=15.24(.600) pin pitch, 9.00(.354) pin offset, 3.0(.118) MIN. pin offset, and Ø3.0(.118) hole diameter. Pin configuration: BS-AA4xRD (4,11). Pin labels: A, B, C, D, E, F, G, DP. Pin numbers: 9, 8, 5, 2, 1, 12, 14, 6. NP: 3,7,10,13.</p>	<p>Technical drawing of SD-46 BS-^A_CA5xRD LED display. Dimensions include: 13.60(.535) width, 25.4(1.00) height, 22.76(.896) base width, 33.00(1.299) total height, 8° viewing angle, 2.54(.100) pin pitch, 5.08(.200) pin height, 2.54(.100) pin offset, 18.00(.708) base length, 8.90(.350) pin offset, 3.00(.118) MIN. pin offset, and Ø1.84(.072) hole diameter. Pin configuration: BS-AA5xRD (5,15). Pin labels: DP1, DP2, A1, A2, B, C, D1, D2, E, F, G1, G2, J, K, L, M, N, P. Pin numbers: 11, 1, 2, 18, 17, 14, 8, 12, 9, 4, 6, 5, 20, 19, 13, 10, 9.</p>
SD-47 BS- ^A _C B1xRD	SD-48 BF- ^A _C B2xRD
<p>Technical drawing of SD-47 BS-^A_CB1xRD LED display. Dimensions include: 17.30(.681) width, 30.40(1.20) height, 28.80(1.134) base width, 40.70(1.602) total height, 10° viewing angle, 2.54(.100) pin pitch, 9.00(.354) pin offset, 3.00(.118) MIN. pin offset, and Ø3.0(.118) hole diameter. Pin configurations include BS-AB1xRD (1,8) and BS-CB1xRD (1,8). Pin labels: A, B, C, D, E, F, G, DP. Pin numbers: 7, 6, 4, 3, 2, 9, 10, 5.</p>	<p>Technical drawing of SD-48 BF-^A_CB2xRD LED display. Dimensions include: 17.30(.681) width, 30.40(1.20) height, 28.80(1.134) base width, 40.70(1.602) total height, 10° viewing angle, 2.54(.100) pin pitch, 9.00(.354) pin offset, 3.00(.118) MIN. pin offset, and Ø3.0(.118) hole diameter. Pin configurations include BS-AB2xRD (1,5) and BS-CB2xRD (1,5). Pin labels: A, B, C, D, E, F, G, DP. Pin numbers: 7, 6, 4, 3, 2, 9, 10, 8.</p>

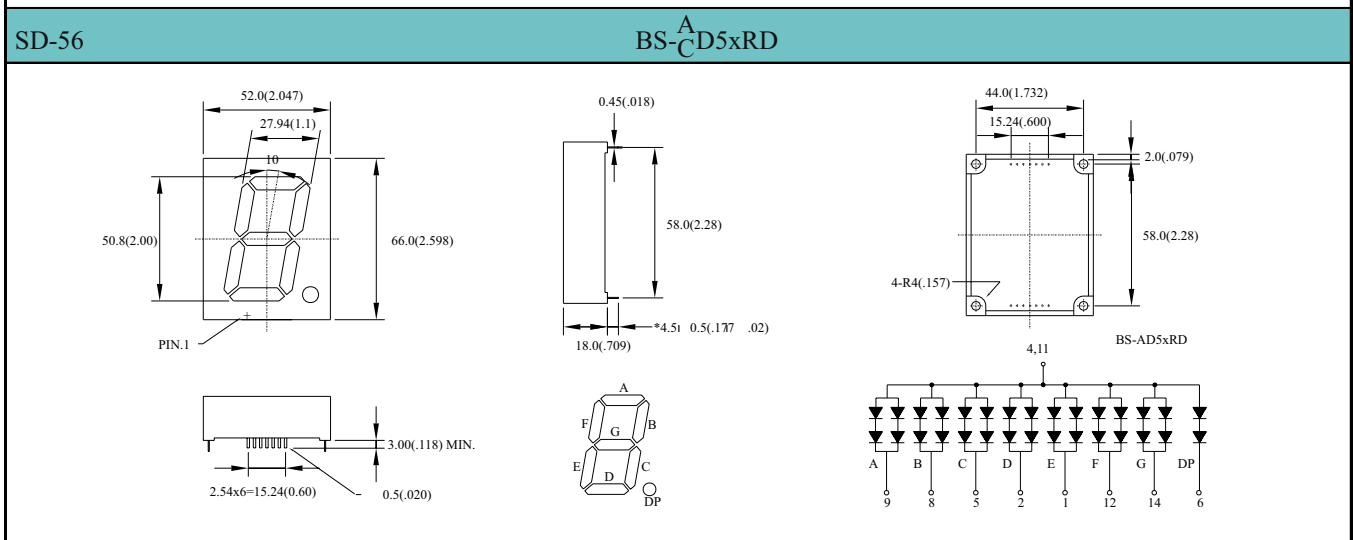
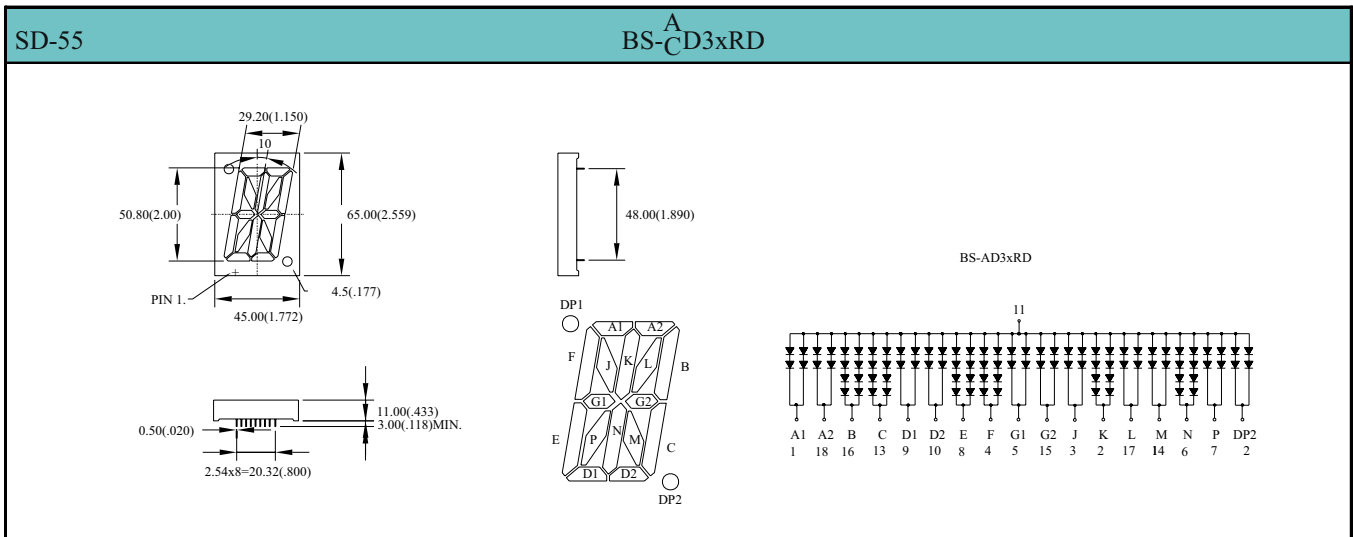
NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is ± 0.25mm(.010").
 3.Specifications are subject to change without notice.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
1.50" Single-Digit	BS-AB31RD	BS-CB31RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-49
	BS-AB35RD	BS-CB35RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BS-AB35RE	BS-CB35RE										
	BS-AB32RD	BS-CB32RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BS-AB33RD	BS-CB33RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
	BS-AB34RD	BS-CB34RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	5.0	
			GaAsP/GaP/ Orange									
BS-AB36RD	BS-CB36RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0		
BS-AB3FRD	BS-CB3FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		
1.50" Overflow Single-Digit	BF-AB31RD	BF-CB31RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-50
	BF-AB35RD	BF-CB35RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BF-AB35RE	BF-CB35RE										
	BF-AB32RD	BF-CB32RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BF-AB33RD	FS-CB33RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
	BF-AB34RD	BF-CB34RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	5.0	
			GaAsP/GaP/ Orange									
BF-AB36RD	BF-CB36RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0		
BF-AB3FRD	BF-CB3FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		
1.50" Single-Digit	BS-AB41RD	BS-CB41RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-51
	BS-AB45RD	BS-CB45RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BS-AB45RE	BS-CB45RE										
	BS-AB42RD	BS-CB42RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BS-AB43RD	BS-CB43RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
	BS-AB44RD	BS-CB44RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	5.0	
			GaAsP/GaP/ Orange									
	BS-AB46RD	BS-CB46RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0	
	BS-AB4FRD	BS-CB4FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0	
	1.50" Single-Digit	BS-AB51RD	BS-CB51RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	
BS-AB55RD		BS-CB55RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
BS-AB55RE		BS-CB55RE										
BS-AB52RD		BS-CB52RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
BS-AB53RD		BS-CB53RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
BS-AB54RD		BS-CB54RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	5.0	
			GaAsP/GaP/ Orange									
BS-AB56RD		BS-CB56RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0	
BS-AB5FRD	BS-CB5FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		
1.80" Single-Digit	BS-AB01RD	BS-CB01RD	GaAsP/Red	655	40	240	40	200	5.1	6.0	4.5	SD-53
	BS-AB05RD	BS-CB05RD	GaP/ Bright Red	700	90	120	15	50	6.6	7.5	5.5	
	BS-AB05RE	BS-CB05RE										
	BS-AB02RD	BS-CB02RD	GaP/ Green	568	30	240	30	150	6.6	7.5	7.0	
	BS-AB03RD	BS-CB03RD	GaAsP/GaP/ Yellow	585	35	240	30	150	6.3	7.5	6.0	
	BS-AB04RD	BS-CB04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	240	30	150	6.0	7.5	7.0	
			GaAsP/GaP/ Orange									
BS-AB06RD	BS-CB06RD	GaAlAs/ SH Super Red	660	20	240	30	150	5.1	7.5	12.0		
BS-AB0FRD	BS-CB0FRD	GaAlAs/ DDH Super Red	660	20	240	30	150	6.0	7.5	17.0		
1.80" Overflow Single-Digit	BF-AB01RD	BF-CB01RD	GaAsP/Red	655	40	240	40	200	5.1	6.0	4.5	SD-54
	BF-AB05RD	BF-CB05RD	GaP/ Bright Red	700	90	120	15	50	6.6	7.5	5.5	
	BF-AB05RE	BF-CB05RE										
	BF-AB02RD	BF-CB02RD	GaP/ Green	568	30	240	30	150	6.6	7.5	7.0	
	BF-AB03RD	BF-CB03RD	GaAsP/GaP/ Yellow	585	35	240	30	150	6.3	7.5	6.0	
	BF-AB04RD	BF-CB04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	240	30	150	6.0	7.5	7.0	
			GaAsP/GaP/ Orange									
BF-AB06RD	BF-CB06RD	GaAlAs/ SH Super Red	660	20	240	30	150	5.1	7.5	12.0		
BF-AB0FRD	BF-CB0FRD	GaAlAs/ DDH Super Red	660	20	240	30	150	6.0	7.5	17.0		

<p>SD-49 BS-$\frac{A}{C}$B3xRD</p>	<p>SD-50 BF-$\frac{A}{C}$B3xRD</p>
<p>SD-51 BS-$\frac{A}{C}$B4xRD</p>	<p>SD-52 BS-$\frac{A}{C}$B5xRD</p>
<p>SD-53 BS-$\frac{A}{C}$B0xRD</p>	<p>SD-54 BF-$\frac{A}{C}$B0xRD</p>

NOTES: 1.All Dimensions are in millimeters(inches). 2.Tolerance is $\pm 0.25\text{mm}(.010\text{'})$.
 3.Specifications are subject to change without notice. 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
2.00" Alpha Numeric Single-Digit	BS-AD31RD	BS-CD31RD	GaAsP/Red	655	40	320	40	200	6.8	8.0	6.0	SD-55
	BS-AD35RD	BS-CD35RD	GaP/ Bright Red	700	90	130	15	50	8.8	8.4	8.0	
	BS-AD35RE	BS-CD35RE										
	BS-AD32RD	BS-CD32RD	GaP/ Green	568	30	250	30	150	8.8	8.4	12.0	
	BS-AD33RD	BS-CD33RD	GaAsP/GaP/ Yellow	585	35	250	30	150	8.4	8.4	10.0	
	BS-AD34RD	BS-CD34RD	GaAsP/GaP/ Hi-Eff.Red	635	45	250	30	150	8.0	8.4	12.0	
			GaAsP/GaP/ Orange									
	BS-AD36RD	BS-CD36RD	GaAlAs/ SH Super Red	660	20	250	30	150	6.8	8.4	18.0	
BS-AD3FRD	BS-CD3FRD	GaAlAs/ DDH Super Red	660	20	250	30	150	8.0	8.4	25.0		
2.00" Single-Digit	BS-AD51RD	BS-CD51RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	5.0	SD-56
	BS-AD55RD	BS-CD55RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	7.0	
	BS-AD55RE	BS-CD55RE										
	BS-AD52RD	BS-CD52RD	GaP/ Green	568	30	120	30	150	4.4	5.0	10.0	
	BS-AD53RD	BS-CD53RD	GaAsP/GaP/ Yellow	585	35	120	30	150	4.4	5.0	8.0	
	BS-AD54RD	BS-CD54RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.0	5.0	10.0	
			GaAsP/GaP/ Orange									
	BS-AD56RD	BS-CD56RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	16.0	
BS-AD5FRD	BS-CD5FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	22.0		



NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is $\pm 0.25\text{mm}(0.010)$.
 3.Specifications are subject to change without notice.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
2.30" Single-Digit	BS-AD11RD	BS-CD11RD	GaAsP/Red	655	40	320	40	200	6.8	8.0	6.0	SD-57
	BS-AD15RD	BS-CD15RD	GaP/ Bright Red	700	90	160	15	50	8.8	10.0	8.0	
	BS-AD15RE	BS-CD15RE										
	BS-AD12RD	BS-CD12RD	GaP/ Green	568	30	310	30	150	8.8	10.0	12.0	
	BS-AD13RD	BS-CD13RD	GaAsP/GaP/ Yellow	585	35	310	30	150	8.4	10.0	10.0	
	BS-AD14RD	BS-CD14RD	GaAsP/GaP/ Hi-Eff.Red	635	45	310	30	150	8.0	10.0	12.0	
			GaAsP/GaP/ Orange									
	BS-AD16RD	BS-CD16RD	GaAlAs/ SH Super Red	660	20	310	30	150	6.8	10.0	18.0	
BS-AD1FRD	BS-CD1FRD	GaAlAs/ DDH Super Red	660	20	310	30	150	8.0	10.0	25.0		
2.30" Alpha-Numeric Single-Digit	BS-AD21RD	BS-CD21RD	GaAsP/Red	655	40	160	40	200	3.4	4.0	2.5	SD-58
	BS-AD25RD	BS-CD25RD	GaP/ Bright Red	700	90	80	15	50	4.4	5.0	3.5	
	BS-AD25RE	BS-CD25RE										
	BS-AD22RD	BS-CD22RD	GaP/ Green	568	30	160	30	150	4.4	5.0	5.0	
	BS-AD23RD	BS-CD23RD	GaAsP/GaP/ Yellow	585	35	160	30	150	4.2	5.0	4.0	
	BS-AD24RD	BS-CD24RD	GaAsP/GaP/ Hi-Eff.Red	635	45	160	30	150	4.4	5.0	5.0	
			GaAsP/GaP/ Orange									
	BS-AD26RD	BS-CD26RD	GaAlAs/ SH Super Red	660	20	160	30	150	3.4	5.0	10.0	
BS-AD2FRD	BS-CD2FRD	GaAlAs/ DDH Super Red	660	20	160	30	150	4.0	5.0	15.0		

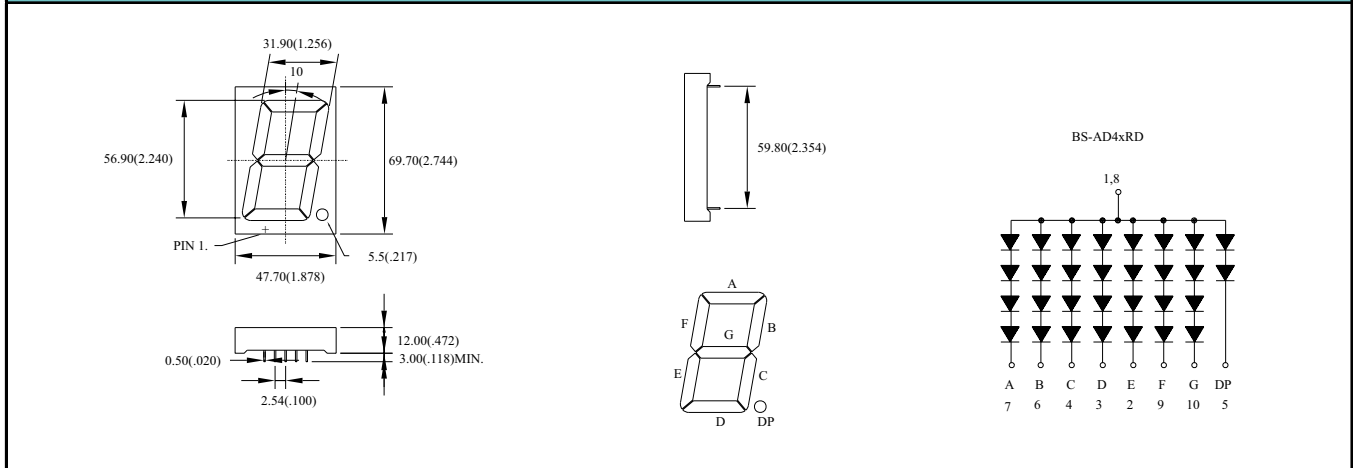
SD-57 **BS- $\frac{A}{C}$ D1xRD**

SD-58 **BS- $\frac{A}{C}$ D2xRD**

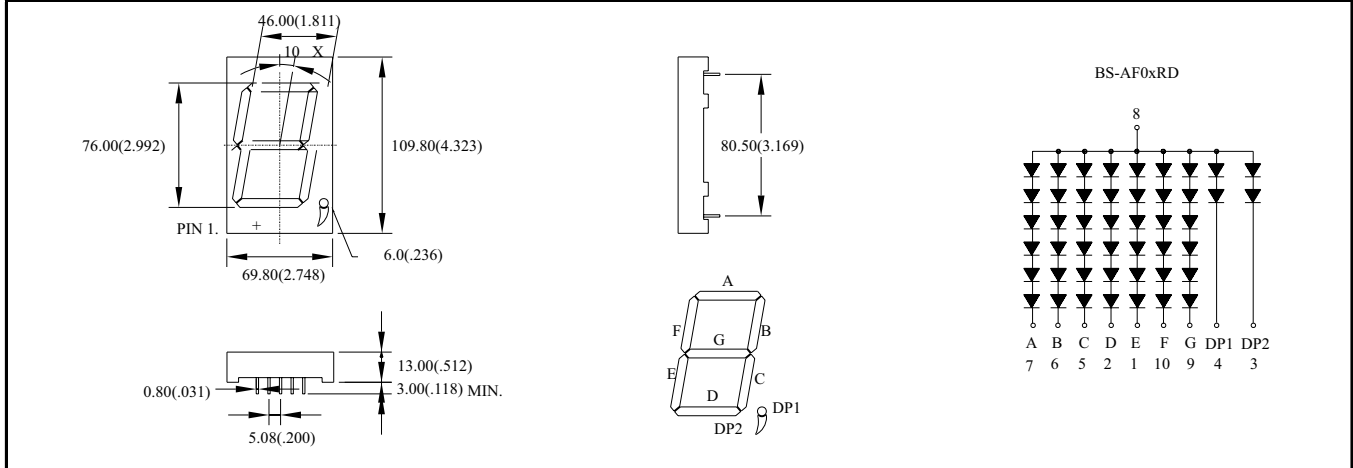
NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is $\pm 0.25\text{mm}(010^{\circ})$.
 3.Specifications are subject to change without notice. 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
2.30" Single-Digit	BS-AD41RD	BS-CD41RD	GaAsP/Red	655	40	320	40	200	6.8	8.0	6.0	SD-59
	BS-AD45RD	BS-CD45RD	GaP/ Bright Red	700	90	160	15	50	8.8	10.0	8.0	
	BS-AD45RE	BS-CD45RE										
	BS-AD42RD	BS-CD42RD	GaP/ Green	568	30	310	30	150	8.8	10.0	12.0	
	BS-AD43RD	BS-CD43RD	GaAsP/GaP/ Yellow	585	35	310	30	150	8.4	10.0	10.0	
	BS-AD44RD	BS-CD44RD	GaAsP/GaP/ Hi-Eff.Red	635	45	310	30	150	8.0	10.0	12.0	
			GaAsP/GaP/ Orange									
BS-AD46RD	BS-CD46RD	GaAlAs/ SH Super Red	660	20	310	30	150	6.8	10.0	18.0		
BS-AD4FRD	BS-CD4FRD	GaAlAs/ DDH Super Red	660	20	310	30	150	8.0	10.0	25.0		
3.00" Single-Digit	BS-AF01RD	BS-CF01RD	GaAsP/Red	655	40	480	40	200	9.6	12.0	8.5	SD-60
	BS-AF05RD	BS-CF05RD	GaP/ Bright Red	700	90	230	15	50	12.6	15.0	10.0	
	BS-AF05RE	BS-CF05RE										
	BS-AF02RD	BS-CF02RD	GaP/ Green	568	30	460	30	150	12.6	15.0	14.0	
	BS-AF03RD	BS-CF03RD	GaAsP/GaP/ Yellow	585	35	460	30	150	12.0	15.0	12.0	
	BS-AF04RD	BS-CF04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	460	30	150	11.5	15.0	14.0	
			GaAsP/GaP/ Orange									
BS-AF06RD	BS-CF06RD	GaAlAs/ SH Super Red	660	20	460	30	150	10.2	15.0	15.0		
BS-AF0FRD	BS-CF0FRD	GaAlAs/ DDH Super Red	660	20	460	30	150	12.0	15.0	25.0		

SD-59 BS-^A_CD4xRD



SD-60 BS-^A_CF0xRD



NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is $\pm 0.25\text{mm}(\pm 0.010")$.
 3.Specifications are subject to change without notice.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
4.00" Single-Digit	BS-AE01RD	BS-CE01RD	GaAsP/Red	655	40	400	40	200	8.5	10.0	8.0	SD-61
	BS-AE05RD	BS-CE05RD	GaP/ Bright Red	700	90	200	15	50	11.0	12.5	9.0	
	BS-AE05RE	BS-CE05RE										
	BS-AE02RD	BS-CE02RD	GaP/ Green	568	30	390	30	150	11.0	12.5	13.0	
	BS-AE03RD	BS-CE03RD	GaAsP/GaP/ Yellow	585	35	390	30	150	11.0	12.5	10.0	
	BS-AE04RD	BS-CE04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	390	30	150	11.0	12.5	13.0	
			GaAsP/GaP/ Orange									
BS-AE06RD	BS-CE06RD	GaAlAs/ SH Super Red	660	20	390	30	150	8.5	12.5	20.0		
BS-AE0FRD	BS-CE0FRD	GaAlAs/ DDH Super Red	660	20	390	30	150	10.0	12.5	25.0		
4.00" Single-Digit	BS-AE11RD	BS-CE11RD	GaAsP/Red	655	40	400	40	200	8.5	10.0	8.0	SD-62
	BS-AE15RD	BS-CE15RD	GaP/ Bright Red	700	90	200	15	50	11.0	12.5	9.0	
	BS-AE15RE	BS-CE15RE										
	BS-AE12RD	BS-CE12RD	GaP/ Green	568	30	390	30	150	11.0	12.5	13.0	
	BS-AE13RD	BS-CE13RD	GaAsP/GaP/ Yellow	585	35	390	30	150	11.0	12.5	10.0	
	BS-AE14RD	BS-CE14RD	GaAsP/GaP/ Hi-Eff.Red	635	45	390	30	150	11.0	12.5	13.0	
			GaAsP/GaP/ Orange									
BS-AE16RD	BS-CE16RD	GaAlAs/ SH Super Red	660	20	390	30	150	8.5	12.5	20.0		
BS-AE1FRD	BS-CE1FRD	GaAlAs/ DDH Super Red	660	20	390	30	150	10.0	12.5	25.0		

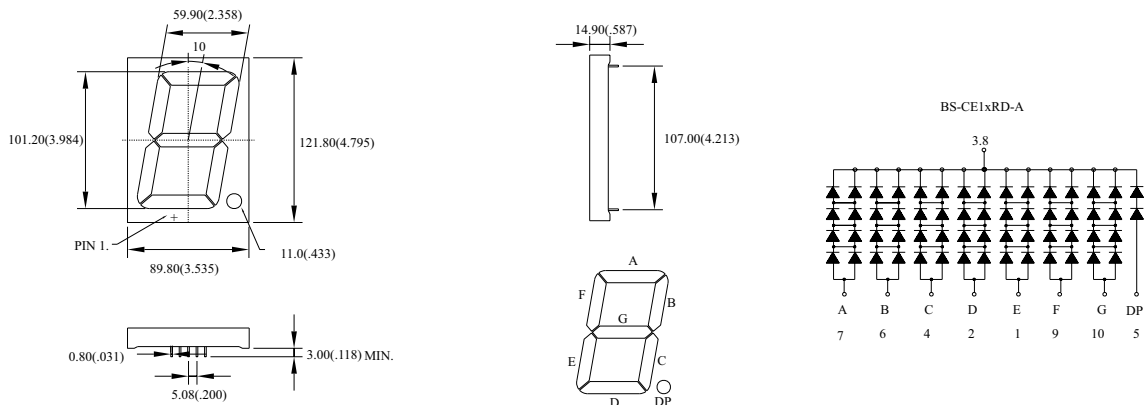
SD-61
BS-^A/_CAE0xRD

SD-62
BS-^A/_CAE1xRD

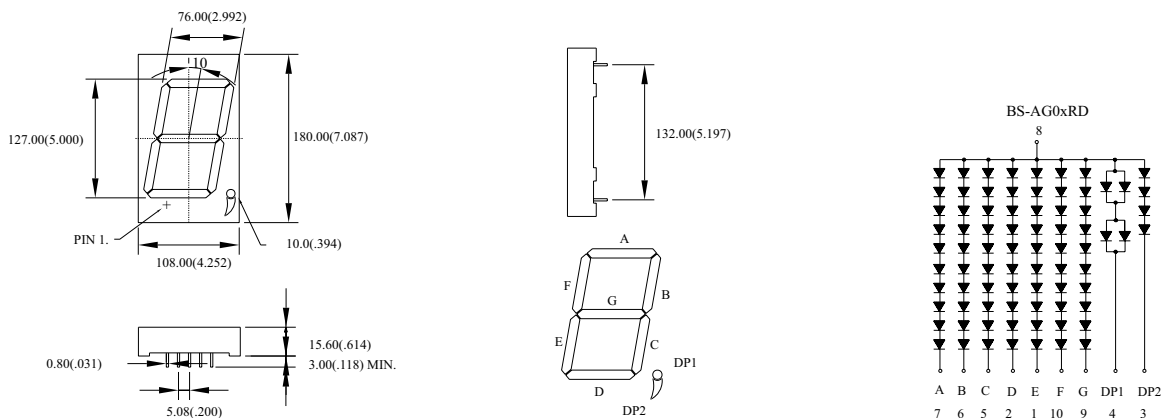
NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is $\pm 0.25\text{mm}(.010")$.
 3.Specifications are subject to change without notice.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
4.00" Single-Digit	BS-AE11RD-A	BS-CE11RD-A	GaAsP/Red	655	40	400	40	200	8.5	10.0	8.0	SD-63
	BS-AE15RD-A	BS-CE15RD-A	GaP/ Bright Red	700	90	200	15	50	11.0	12.5	9.0	
	BS-AE15RE-A	BS-CE15RE-A										
	BS-AE12RD-A	BS-CE12RD-A	GaP/ Green	568	30	390	30	150	11.0	12.5	13.0	
	BS-AE13RD-A	BS-CE13RD-A	GaAsP/GaP/ Yellow	585	35	390	30	150	11.0	12.5	10.0	
	BS-AE14RD-A	BS-CE14RD-A	GaAsP/GaP/ Hi-Eff.Red	635	45	390	30	150	11.0	12.5	13.0	
			GaAsP/GaP/ Orange									
	BS-AE16RD-A	BS-CE16RD-A	GaAlAs/ SH Super Red	660	20	390	30	150	8.5	12.5	20.0	
BS-AE1FRD-A	BS-CE1FRD-A	GaAlAs/ DDH Super Red	660	20	390	30	150	10.0	12.5	25.0		
5.00" Single-Digit	BS-AG01RD	BS-CG01RD	GaAsP/Red	655	40	800	40	200	16.0	20.0	15.0	SD-64
	BS-AG05RD	BS-CG05RD	GaP/ Bright Red	700	90	375	15	50	21.0	25.0	18.0	
	BS-AG05RE	BS-CG05RE										
	BS-AG02RD	BS-CG02RD	GaP/ Green	568	30	750	30	150	21.0	25.0	25.0	
	BS-AG03RD	BS-CG03RD	GaAsP/GaP/ Yellow	585	35	750	30	150	20.0	25.0	20.0	
	BS-AG04RD	BS-CG04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	750	30	150	19.0	25.0	22.0	
			GaAsP/GaP/ Orange									
	BS-AG06RD	BS-CG06RD	GaAlAs/ SH Super Red	660	20	750	30	150	17.0	25.0	30.0	
BS-AG0FRD	BS-CG0FRD	GaAlAs/ DDH Super Red	660	20	750	30	150	20.0	25.0	40.0		

SD-63

 $BS-AE1xRD-A$


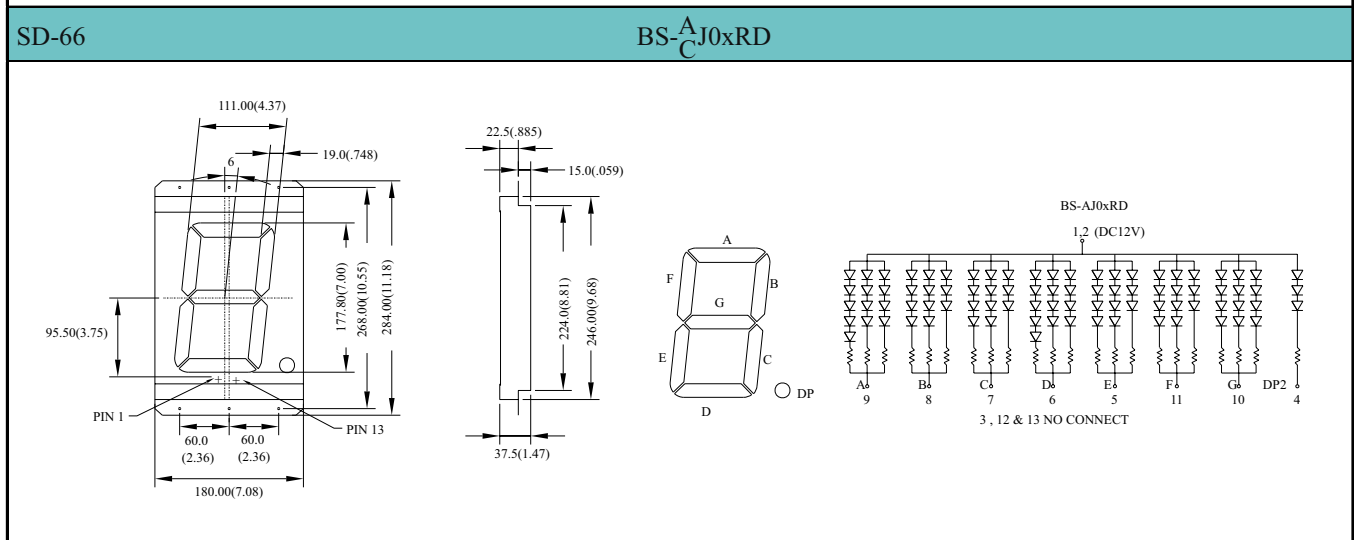
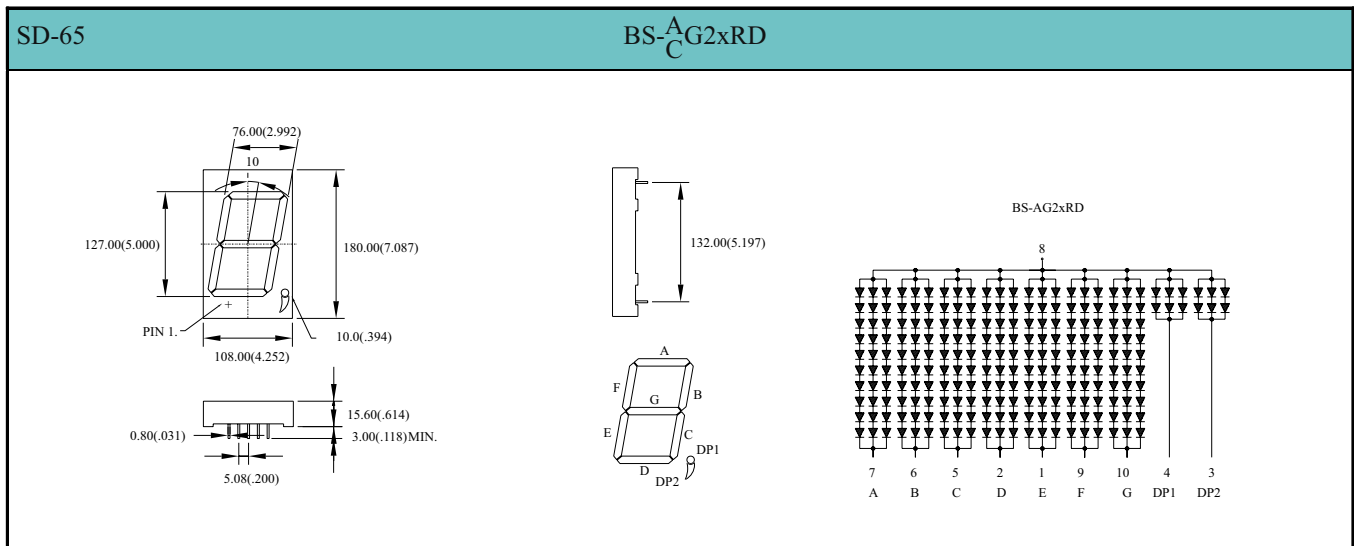
SD-64

 $BS-AG0xRD$


NOTES: 1.All Dimensions are in millimeters(inches).
 3.Specifications are subject to change without notice.

2.Tolerance is $\pm 0.25\text{mm}(0.010")$.
 4.NP:No Pin. 5.NC:No Connect.

Digit Size	Part No.		Chip		Absolute Maximum Ratings				Electro-optical Data(At 10mA)			Drawing No.
	Common Anode	Common Cathode	Material/Emitted Color	Peak Wave Length λ_p (nm)	$\Delta \lambda$ (nm)	Pd (mw)	If (mA)	Ifp (mA)	Vf (v)		Iv. Typ. Per.Seg. (mcd)	
									Typ.	Max.		
5.00" Single-Digit	BS-AG21RD	BS-CG21RD	GaAsP/Red	655	40	800	40	200	16.0	20.0	15.0	SD-65
	BS-AG25RD	BS-CG25RD	GaP/ Bright Red	700	90	375	15	50	21.0	25.0	18.0	
	BS-AG25RE	BS-CG25RE										
	BS-AG22RD	BS-CG22RD	GaP/ Green	568	30	750	30	150	21.0	25.0	25.0	
	BS-AG23RD	BS-CG23RD	GaAsP/GaP/ Yellow	585	35	750	30	150	20.0	25.0	20.0	
	BS-AG24RD	BS-CG24RD	GaAsP/GaP/ Hi-Eff.Red	635	45	750	30	150	19.0	25.0	22.0	
			GaAsP/GaP/ Orange									
	BS-AG26RD	BS-CG26RD	GaAlAs/ SH Super Red	660	20	750	30	150	17.0	25.0	60.0	
BS-AG2FRD	BS-CG2FRD	GaAlAs/ DDH Super Red	660	20	750	30	150	20.0	25.0	80.0		
7.00" Single-Digit	BS-AJ01RD	BS-CJ01RD	GaAsP/Red	655	40	560	40	200	12.0	14.0	20.0	SD-66
	BS-AJ05RD	BS-CJ05RD	GaP/ Bright Red	700	90	270	15	50	15.0	17.5	30.0	
	BS-AJ05RE	BS-CJ05RE										
	BS-AJ02RD	BS-CJ02RD	GaP/ Green	568	30	540	30	150	15.0	17.5	40.0	
	BS-AJ03RD	BS-CJ03RD	GaAsP/GaP/ Yellow	585	35	540	30	150	15.0	17.5	30.0	
	BS-AJ04RD	BS-CJ04RD	GaAsP/GaP/ Hi-Eff.Red	635	45	540	30	150	15.0	17.5	40.0	
			GaAsP/GaP/ Orange									
	BS-AJ06RD	BS-CJ06RD	GaAlAs/ SH Super Red	660	20	450	30	150	12.0	17.5	70.0	
BS-AJ0FRD	BS-CJ0FRD	GaAlAs/ DDH Super Red	660	20	540	30	150	14.0	17.5	90.0		



NOTES: 1.All Dimensions are in millimeters(inches). 2.Tolerance is $\pm 0.25\text{mm}(.010")$. 3.Specifications are subject to change without notice. 4.NP:No Pin. 5.NC:No Connect.