



Single Digit LED Displays BS-A/C, BF-U Series

7-segment, ± 1 overflow

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.		
0.28" 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										
	BS-A282ND	BS-C282ND	GaP/ Green	568	30	80	30	150	2.2	2.5	2.8	
	BS-A283ND	BS-C283ND	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A284ND	BS-C284ND	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	2.8	
		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										
	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/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A284RD-A	BS-C284RD-A	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	2.8	
		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										
	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/ Yellow	585	35	80	30	150	2.1	2.5	2.2	
	BS-A284RD-B	BS-C284RD-B	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	2.8	
		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										
	BS-A302RD	BS-C302RD	GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BS-A303RD	BS-C303RD	GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A304RD	BS-C304RD	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
		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										
	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/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BS-A304RD-A	BS-C304RD-A	GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
		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											
	BF-U302RD		GaP/ Green	568	30	80	30	150	2.2	2.5	3.0	
	BF-U303RD		GaAsP/GaP/ Yellow	585	35	80	30	150	2.1	2.5	2.0	
	BF-U304RD		GaAsP/GaP/ Hi-Eff.Red	635	45	80	30	150	2.0	2.5	3.0	
		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		



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7-segment, ± 1 overflow

SD-01 BS-A_C28xND Top View: 4.00(.157) segment width, 8.20(.323) pin pitch, 7.10(.280) pin offset, 9.90(.390) total height, 0.50(.020) pin width, 0.25(.010) pin thickness, 5.40(.212) pin offset, 6.00(.236) pin offset, 3.00(.118)MIN. pin offset. Side View: 2.54(.100) pin height, 0.50(.020) pin width. Pin Diagram: A, B, C, D, E, F, G, DP. Pin numbers: 8, 7, 6, 5, 4, 3, 2, 1. BS-A28xxx BS-C28xxx	SD-02 BS-A_C28xRD-A Top View: 4.00(.157) segment width, 8.20(.323) pin pitch, 7.10(.280) pin offset, 9.90(.390) total height, 0.50(.020) pin width, 0.25(.010) pin thickness, 5.40(.212) pin offset, 6.00(.236) pin offset, 3.00(.118)MIN. pin offset. Side View: 2.54(.100) pin height, 0.50(.020) pin width. Pin Diagram: A, B, C, D, E, F, G, DP. Pin numbers: 7, 6, 4, 2, 1, 10, 9, 5. BS-A28RD-A BS-C28RD-A
SD-03 BS-A_C28xRD-B Top View: 4.85(.191) segment width, 7.40(.291) pin pitch, 7.00(.276) pin offset, 10.00(.394) total height, 0.50(.020) pin width, 0.25(.010) pin thickness, 5.08(.20) pin offset, 6.10(.240) pin offset, 3.5 ± 0.5(.1383.5 ± 0.2)MIN. pin offset. Side View: 2.54(.100) pin height, 0.50(.020) pin width. Pin Diagram: A, B, C, D, E, F, G, DP. Pin numbers: 7, 6, 4, 2, 1, 10, 9, 5. BS-A28RD-B BS-C28RD-B	SD-04 BS-A_C30xRD Top View: 5.20(.205) segment width, 10.10(.394) pin pitch, 7.62(.300) pin offset, 19.00(.748) total height, 0.50(.020) pin width, 0.25(.010) pin thickness, 5.08(.20) pin offset, 6.10(.240) pin offset, 3.00(.118)MIN. pin offset. Side View: 2.54(.100) pin height, 0.50(.020) pin width. Pin Diagram: A, B, C, D, E, F, G, DP. Pin numbers: 6, 1, 13, 10, 8, 7, 2, 11, 9. BS-A30xxx BS-C30xxx NP: 4,5,12. NP: 1,7,8,14
SD-05 BS-A_C30xRD-A Top View: 5.10(.201) segment width, 10.10(.394) pin pitch, 7.62(.300) pin offset, 19.00(.748) total height, 0.50(.020) pin width, 0.25(.010) pin thickness, 5.08(.20) pin offset, 6.10(.240) pin offset, 3.00(.118)MIN. pin offset. Side View: 2.54(.100) pin height, 0.50(.020) pin width. Pin Diagram: A, B, C, D, E, F, G, DP. Pin numbers: 6, 1, 13, 10, 8, 7, 2, 11, 9. BS-A30RD-A BS-C30RD-A NP: 4,5,12. NP: 1,7,8,14.	SD-06 BF-U30xRD Top View: 5.10(.201) segment width, 10.10(.394) pin pitch, 7.62(.300) pin offset, 19.00(.748) total height, 0.50(.020) pin width, 0.25(.010) pin thickness, 5.08(.20) pin offset, 6.10(.240) pin offset, 3.00(.118)MIN. pin offset. Side View: 2.54(.100) pin height, 0.50(.020) pin width. Pin Diagram: A, B, C, D, E, F, G, DP. Pin numbers: 13, 14, 7, 1, 6, 8, 12, 11, 4, 3, 5, 10. NP: 2,9.

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.

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