

Common Mode BIS Series

Descriptions

Common Mode (CM) Boarden Isolated Surge (BIS) protection device is a semiconductor device developed for surge protection requirements of non-isolated LED drivers. Solution of BIS series connecting with MOVs can meet both isolation requirements and surge protection requirements. For class I LED devices, isolation requirement of electrical strength is 1000V+2U (U is rated work Voltage), this means the surge protections solutions should have peak reverse voltage rated up to 1000V+2U, and thus the residual voltage is very high under 4KV or 6KV 1.2/50us &8/ 20us surge waves for both L-PE and N-PE lines. Boarden CM BIS products family can significantly reduce the residual voltage hence protect the LED driver safe and reliable.

Features

- Meeting both insolation requirement and surge protection requirements
- Long life under repetitive surges
- Package: SMB
- High Working Voltages
- Bi-directional
- RoHS compliant
- TUV Rheinland Certificate: R50442482

Order Information

Package	Qty per Reel	Таре	
SMB	3000	13" Reel	

Maximum Ratings and Thermal Characteristics (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Working Peak Reverse Voltage	V _R	1000	V
Normal Breakdown Voltage (Typ.)	V _{BR}	1360-1840	V
Operating Temperature Range	TJ	-40 to 125	°C
Storage Temperature Range	T _{STG}	-40 to 150	°C
Typical Thermal Resistance Junction to Lead	R _{uJL}	20	°C/W
Typical Thermal Resistance Junction to Ambient	R _{uJA}	100	°C/W



Device Ratings and Specifications (Tamb=25℃)

Dest New York	Insulation Voltage (Vı)	Surge Starting Voltage (Vs)	Surge Capacity ¹⁾ (1.2/50µs & 8/20µs)		Cj	- Package	Marking
Part Number	v	V	Open Circuit Peak Pulse Voltage Current pF		рF		
	min	max	v	Α	max		
BIS-DS602-S 2)	1600	2200	6000	500	100	SMB	b DS1

Note 1: Waveform 1.2/50µs & 8/20µs, Ri=12ohm

Note 2: For BIS-DS602-S, the parameters VI and Vs are the total values of two

components, for these two components should be used by pairs in series during installation.



Normalized V_{BR} change vs. Tj



Iron Soldering Profile



Lead-free Re-flow Solder Profile





Product Dimensions (mm)

SMB (DO-214AA)

Dimensions	Inches		Millimeters		
	Min	Max	Min	Max	
A	0.071	0.086	1.800	2.200	
В	0.159	0.183	4.050	4.650	
С	0.130	0.155	3.300	3.940	
D	0.080	0.106	2.050	2.700	
E	0.030	0.060	0.760	1.520	
F	-	0.016	-	0.400	
G	0.195	0.220	4.95	5.590	
н	0.006	0.012	0.152	0.305	



Marking System



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