
High Power Unidirectional TVS

Compliance Standard

- ◆ IEC 61000-4-2
- ◆ IEC 61000-4-4
- ◆ IEC 61000-4-5
- ◆ EN 50121

Applications

- ◆ Industrial
- ◆ Railway Application
- ◆ Surveillance
- ◆ Measurement

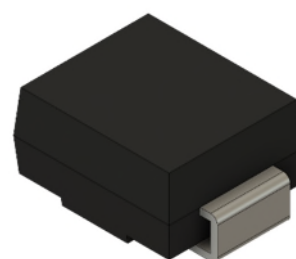
Features

- ◆ 600W Peak Pulse Power
- ◆ Quick Response
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current

Mechanical Characteristics

- ◆ SMB Package
- ◆ Weight 98 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 13"
- ◆ 3,000 PCS Per Reel

Package



SMB

Device Symbol



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P_{PP}	600	Watt
Lead Soldering Temperature	T_L	260 (10s)	$^{\circ}\text{C}$
Operating Temperature Range	T_J	-55~150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS @ 25 $^{\circ}\text{C}$								
Part Number	Marking	Breakdown Voltage V_{BR} @ I_T			I_R @ V_{RWM}	V_{RWM}	I_{PP}	V_C @ I_{PP}
		Min (V)	Max (V)	I_T (mA)	(μA)	(V)	(A)	(V)
SMBJ12A	LE	13.3	14.7	1	5	12.0	30.2	19.9



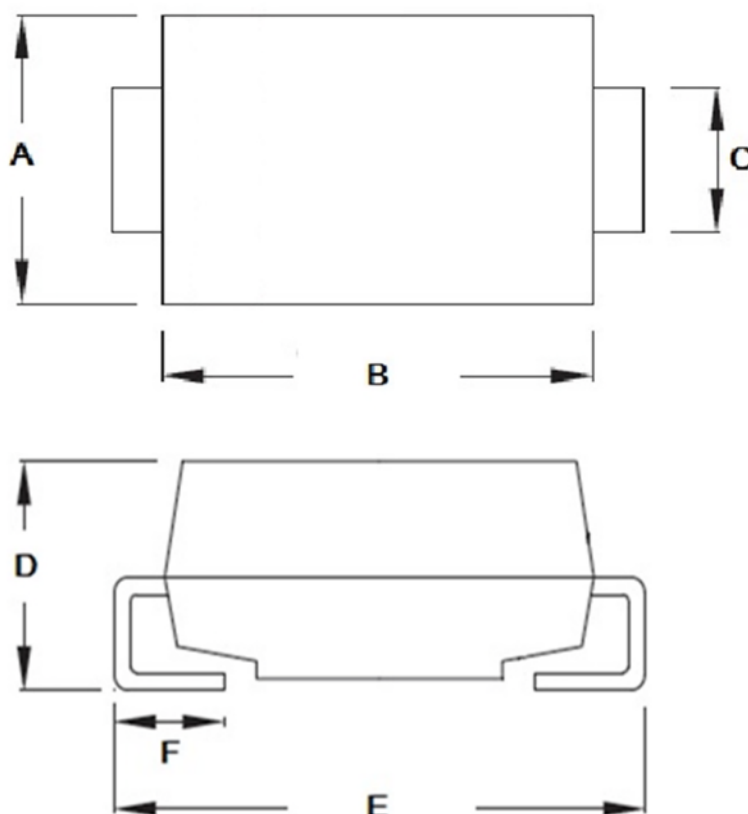
Figure1. I-V Characteristics



Figure2. Power Derating Curve

DEVICE OUTLINE

<i>Outline Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.94	0.130	0.155
B	4.35	4.85	0.171	0.191
C	1.96	2.20	0.077	0.087
D	2.13	2.44	0.084	0.096
E	5.10	5.50	0.201	0.216
F	0.75	1.52	0.030	0.060



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	5.60	6.00	0.220	0.236
B	1.50	1.90	0.059	0.075
C	2.40	2.80	0.094	0.110



<i>Revision History</i>	<i>Description</i>
v2.0	Re-organize datasheet layout