
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

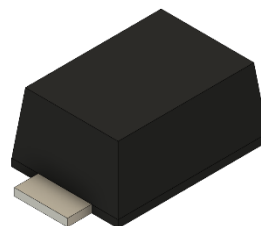
Features

- ◆ 200W Peak Pulse Power
- ◆ Quick Response
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current

Mechanical Characteristics

- ◆ SMF Package
- ◆ Weight 15 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 7"
- ◆ 3,000 PCS Per Reel

Package



SMF

Device Symbol



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P_{PP}	200	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)
SMF12A	HE	13.3	14.7	1	2.5	12.0	10.0	19.9

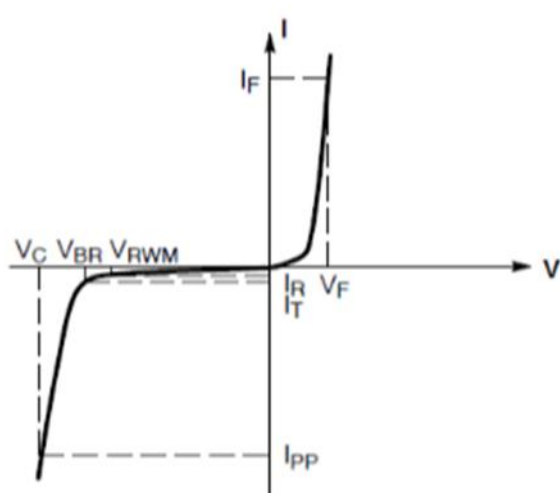


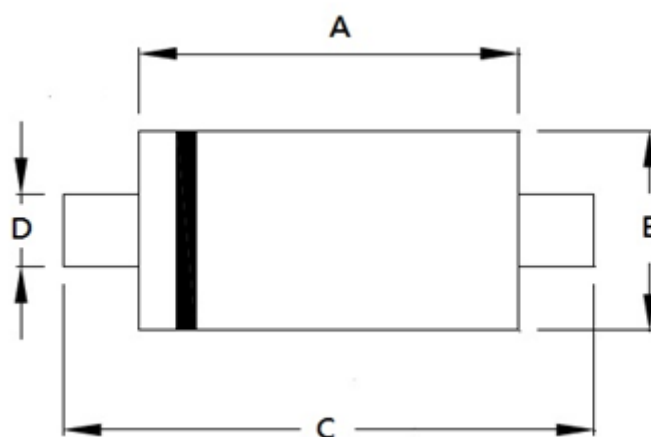
Figure1. I-V Characteristics



Figure2. Power Derating Curve

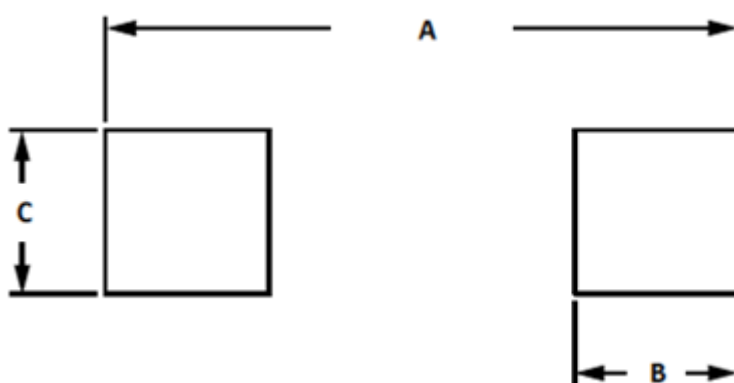
DEVICE OUTLINE

Outline Dimension				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	2.51	2.81	0.100	0.112
B	1.38	1.78	0.055	0.071
C	3.51	3.82	0.140	0.152
D	0.70TYP		0.027TYP	
E	0.93	1.33	0.037	0.053
F	0.25TYP		0.01TYP	
G	0.2TYP		0.008TYP	



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	4.10	4.30	0.161	0.169
B	0.90	1.10	0.035	0.043
C	1.50	1.70	0.059	0.067



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