
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

- ◆ 1500W Peak Pulse Power
- ◆ Quick Response
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current

Mechanical Characteristics

- ◆ SMC Package
- ◆ Weight 270 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 13"
- ◆ 3,000 PCS Per Reel

Package



SMC

Device Symbol



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P_{PP}	1500	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)
SMCJ12A	GEE	13.3	15.3	1	5	12.0	75.3	19.9

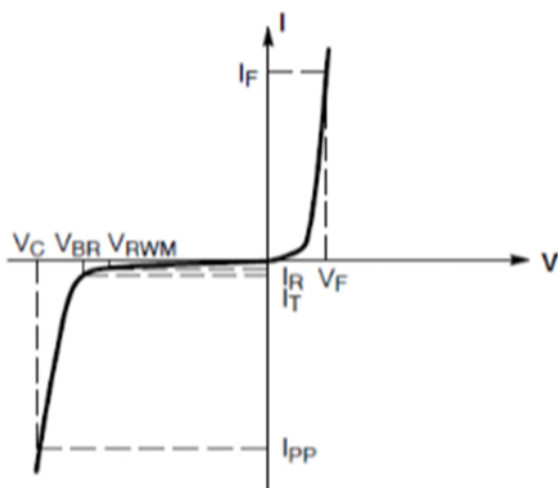


Figure1. I-V Characteristics

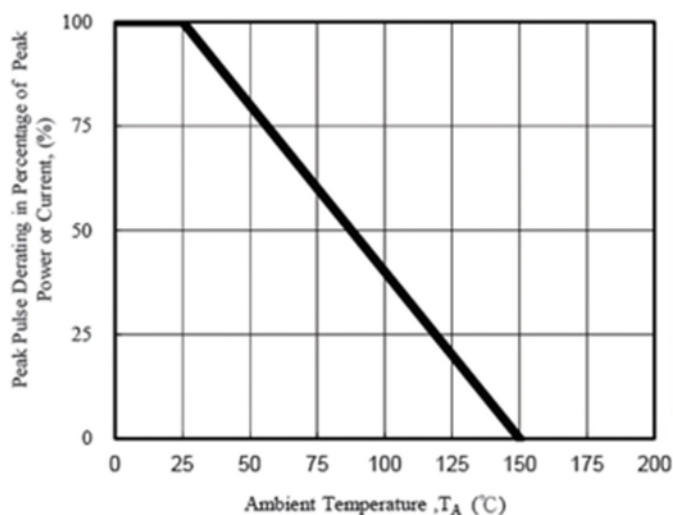


Figure2. Power Derating Curve

DEVICE OUTLINE

<i>Outline Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	5.52	6.15	0.220	0.245
B	6.52	7.02	0.260	0.280
C	2.86	3.16	0.114	0.126
D	1.98	2.59	0.079	0.103
E	7.64	8.02	0.305	0.320
F	0.75	1.51	0.030	0.060



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	8.10	8.30	0.318	0.327
B	1.90	2.10	0.074	0.083
C	3.00	3.20	0.118	0.126



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