



#### 600W SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

#### **Features**

- 600W Peak Pulse Power Dissipation
- 350V Standoff Voltage
- Glass Passivated Die Construction
- Excellent Clamping Capability
- Fast Response Time
- Lead Free Finish/RoHS Compliant (Note 1)
- Green Molding Compound (No Halogen and Antimony) (Note 2)

### **Mechanical Data**

- Case: SMB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Cathode Band
- Weight: 0.1 grams (approximate)





Top View

**Bottom View** 

## Ordering Information (Note 3)

Part Number	Qualification	Case	Packaging	
SMBJ350A-13-F	Commercial	SMB	3000/Tape & Reel	

Notes:

- 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes
- 2. Diodes Inc.`s "Green" Policy can be found on our website at http://www.diodes.com.
- 3. For packaging details, go to our website at http://www.diodes.com.

## **Marking Information**



QG = Product type marking code (See Page 2)

| Sit = Manufacturers' code marking

| YWW = Date code marking
| Y = Last digit of year (ex: 1 for 2011)

| WW = Week code (01 ~ 53)



## Maximum Ratings @TA = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above $T_A = 25^{\circ}$ C) (Note 4)	P <sub>PK</sub>	600	W
Peak Power Derating Above 25°C	P <sub>der</sub>	4.8	W/°C
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (Notes 4 & 5)	I <sub>FSM</sub>	100	Α
Steady State Power Dissipation @ T <sub>L</sub> = 75°C	PM <sub>(AV)</sub>	5.0	W
Instantaneous Forward Voltage @ I <sub>PP</sub> = 35A (Notes 4 & 5)	$V_{F}$	5.0	V

#### **Thermal Characteristics**

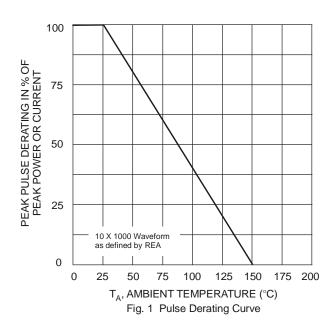
Characteristic	Symbol	Value	Unit
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175	°C

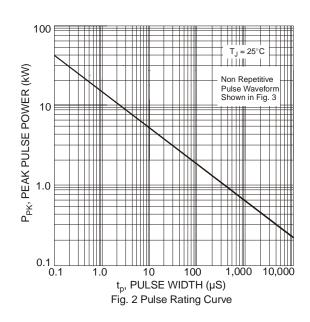
### Electrical Characteristics @TA = 25°C unless otherwise specified

Part Number	Reverse Standoff Voltage		down age (Note 6)	Test Current	Max. Reverse Leakage @ V <sub>RWM</sub>	Max. Clamping Voltage @ I <sub>pp</sub>	Max. Peak Pulse Current I <sub>pp</sub>	Marking Code
See Note 5	V <sub>RWM</sub> (V)	Min (V)	Max (V)	I <sub>T</sub> (mA)	I <sub>R</sub> (μΑ)	V <sub>C</sub> (V)	(A)	-
SMBJ350A	350.0	391.0	432.0	1.0	5.0	567.0	1.1	QG

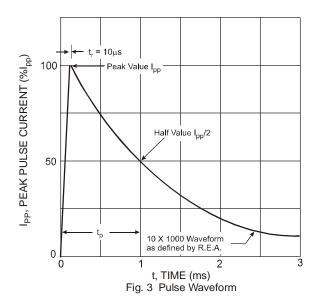
Notes:

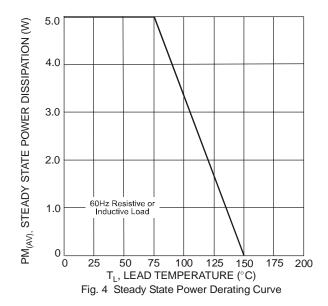
- 4. Valid provided that terminals are kept at ambient temperature.
- 5. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
- 6.  $V_{BR}$  measured with  $I_T$  current pulse =  $300\mu s$



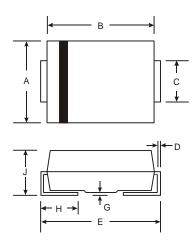






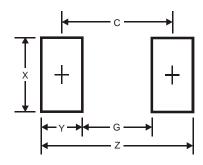


# **Package Outline Dimensions**



SMB						
Dim	Min	Max				
Α	3.30	3.94				
В	4.06	4.57				
С	1.96	2.21				
D	0.15	0.31				
Е	5.00	5.59				
G	0.05	0.20				
Н	0.76	1.52				
J	2.00	2.50				
All Dimensions in mm						

# Suggested Pad Layout



Dimensions	Value (in mm)
Z	6.8
G	1.8
Х	2.3
Υ	2.5
С	4.3



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