

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)

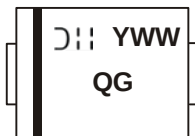
Top View

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)
 𐄂𐄂𐄂 = Manufacturers' code marking
 YWW = Date code marking
 Y = Last digit of year (ex: 1 for 2011)
 WW = Week code (01 ~ 53)

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above T _A = 25° C) (Note 4)	P _{PK}	600	W
Peak Power Derating Above 25°C	P _{der}	4.8	W/°C
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (Notes 4 & 5)	I _{FSM}	100	A
Steady State Power Dissipation @ T _L = 75°C	PM(AV)	5.0	W
Instantaneous Forward Voltage @ I _{PP} = 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 _{STG}	-55 to +175	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Part Number	Reverse Standoff Voltage	Breakdown Voltage V _{BR} @ I _T (Note 6)		Test Current	Max. Reverse Leakage @ V _{RWM}	Max. Clamping Voltage @ I _{PP}	Max. Peak Pulse Current I _{PP}	Marking Code
See Note 5	V _{RWM} (V)	Min (V)	Max (V)	I _T (mA)	I _R (μA)	V _C (V)	I _{PP} (A)	-
SMBJ350A	350.0	391.0	432.0	1.0	5.0	567.0	1.1	QG

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

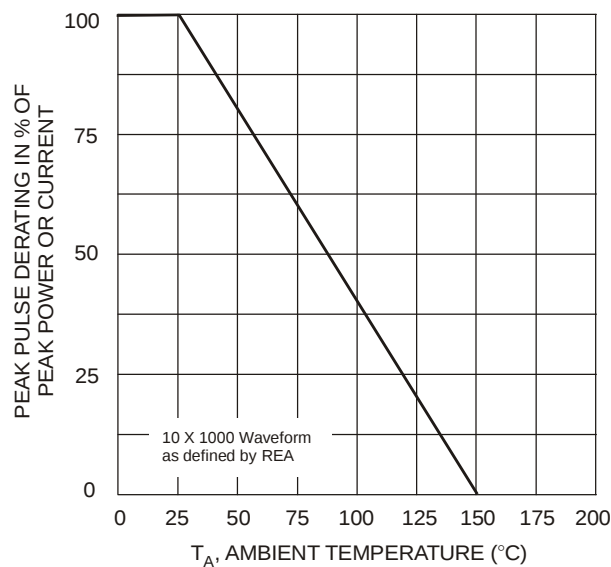


Fig. 1 Pulse Derating Curve

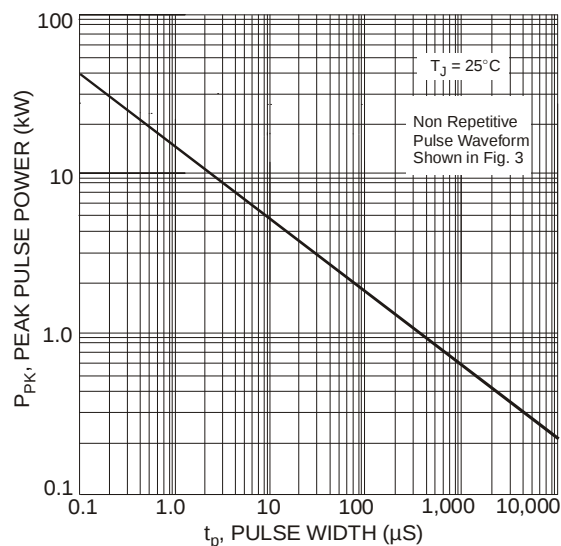
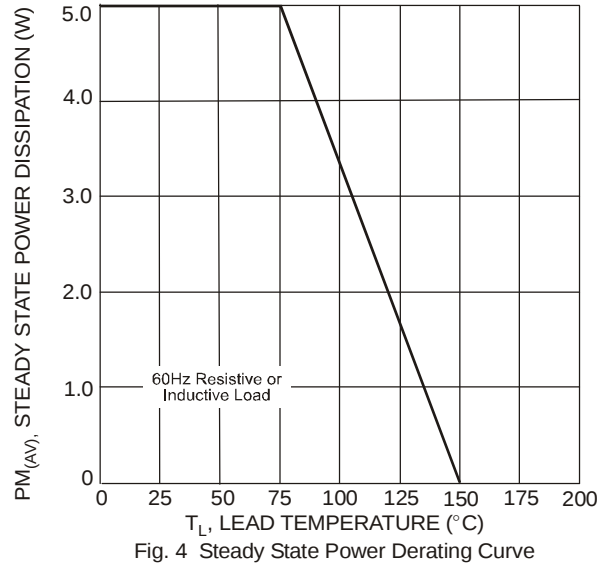
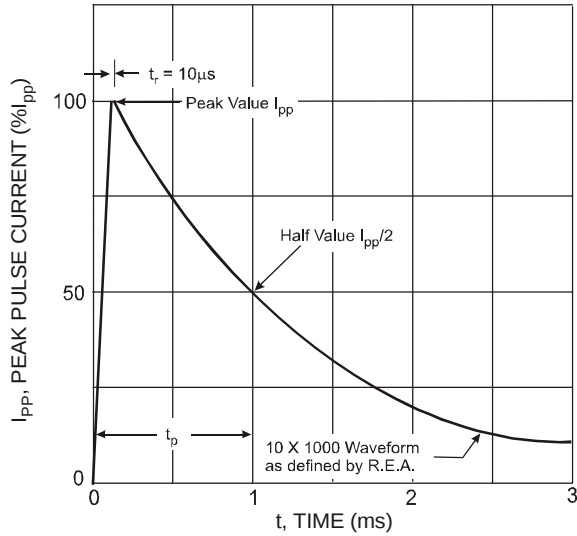
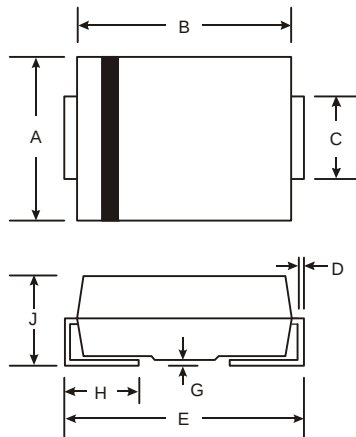


Fig. 2 Pulse Rating Curve

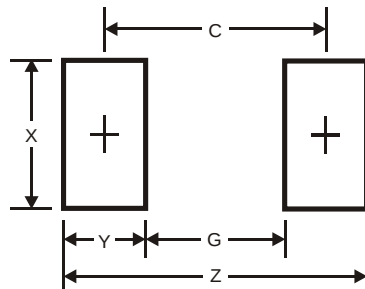


Package Outline Dimensions



SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.05	0.20
H	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
X	2.3
Y	2.5
C	4.3

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