



Features

Excellent clamping capability
Low leakage current
Low capacitance
High surge capability
Glass passivated chip
Epoxy resin package
Built-in strain relief
repetition rate (duty cycle): 0.01%
RoHS Compliant



SMB

Mechanical Data

Case : JEDEC DO-214AA/SMB molded plastic body
Terminals : Solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.003 ounce, 0.095 grams
Standard Packaging: 12mm tape (EIA STD RS-481)

Applications

- I/O interface
- AC/DC power supply
- Low frequency signal transmission line (RS232, RS485, etc.)

Maximum Ratings (T_A=25°C unless otherwise noted)

Peak pulse power dissipation at 10/1000μs waveform (Note1, Note2, Fig.1)	P _{PPM}	600	W
Peak pulse current of at 10/1000μs waveform (Note 1, Fig.3)	I _{PPM}	41.1	A
Steady state power dissipation at T _A =50°C (Fig.5)	P _{M(AV)}	5.0	W
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, (JEDEC Method) (Note3, Fig.6)	I _{FSM}	100	A
Operating junction and Storage Temperature Range.	T _J , T _{STG}	-65 to +150	°C
Typical thermal resistance junction to lead	R _{θJL}	20	°C/W
Typical thermal resistance junction to ambient	R _{θJA}	100	°C/W

Notes:1. Non-repetitive current pulse, per Fig.3 and derated above T_A=25°C per Fig.2.

2. Mounted on 5.0mm×5.0mm (0.03mm thick) copper pads to each terminal.

3. 8.3ms single half sine-wave, or equivalent square wave, duty cycle=4 pulses per minutes maximum.

Electrical Characteristics (T_A=25°C)

Part Number		Device Marking Code		Reverse Stand-Off Voltage	Breakdown Voltage @I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
Unidirectional	Bidirectional	UNI	BI	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (μA)
SMBJ3.3A	SMBJ3.3CA	3V3	3V3C	3.3	5.6-4.6	100	7.3	41.1	2000



Typical Characteristics

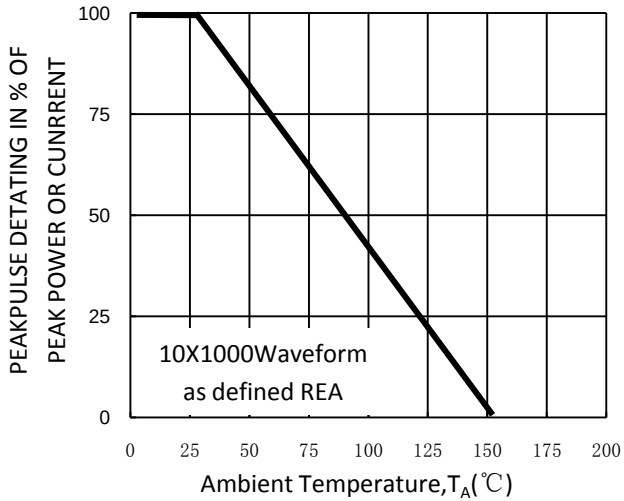


Fig. 1-Pulse Derating Curve

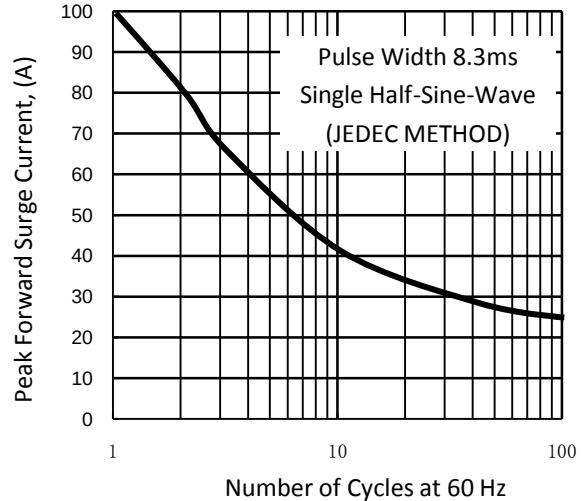


Fig. 2-Maximum Non-Repetitive Surge Current

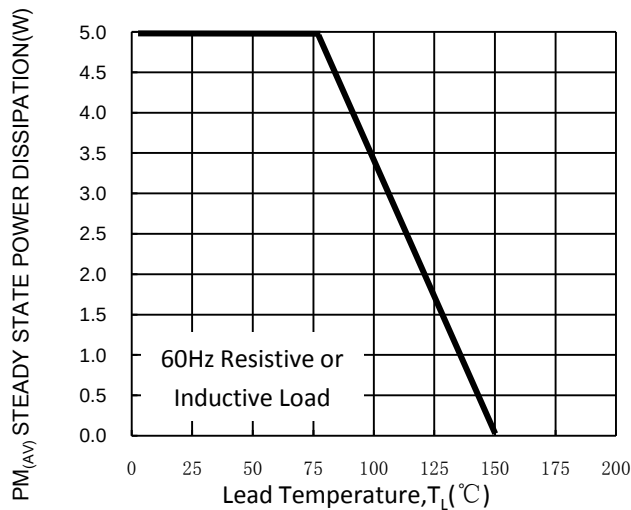


Fig. 3-Steady State Power Derating Curve

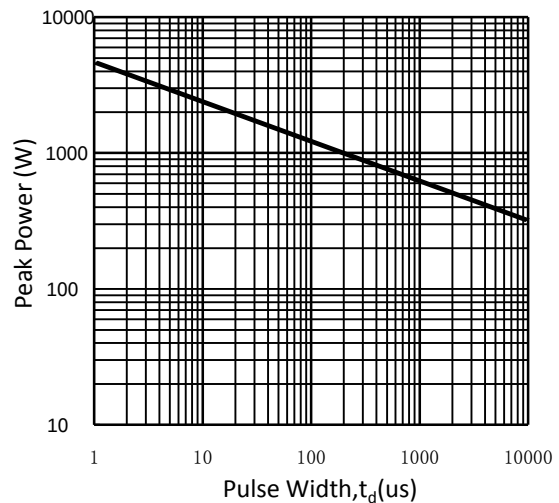


Fig. 4-Peak Pulse Power Rating Curve

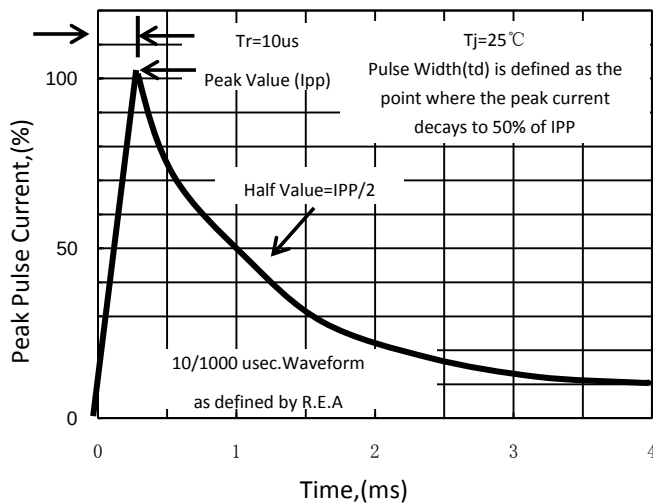


Fig. 5-Pulse Waveform

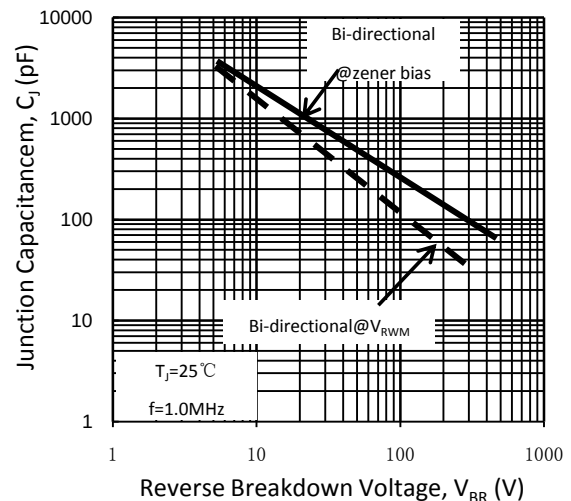
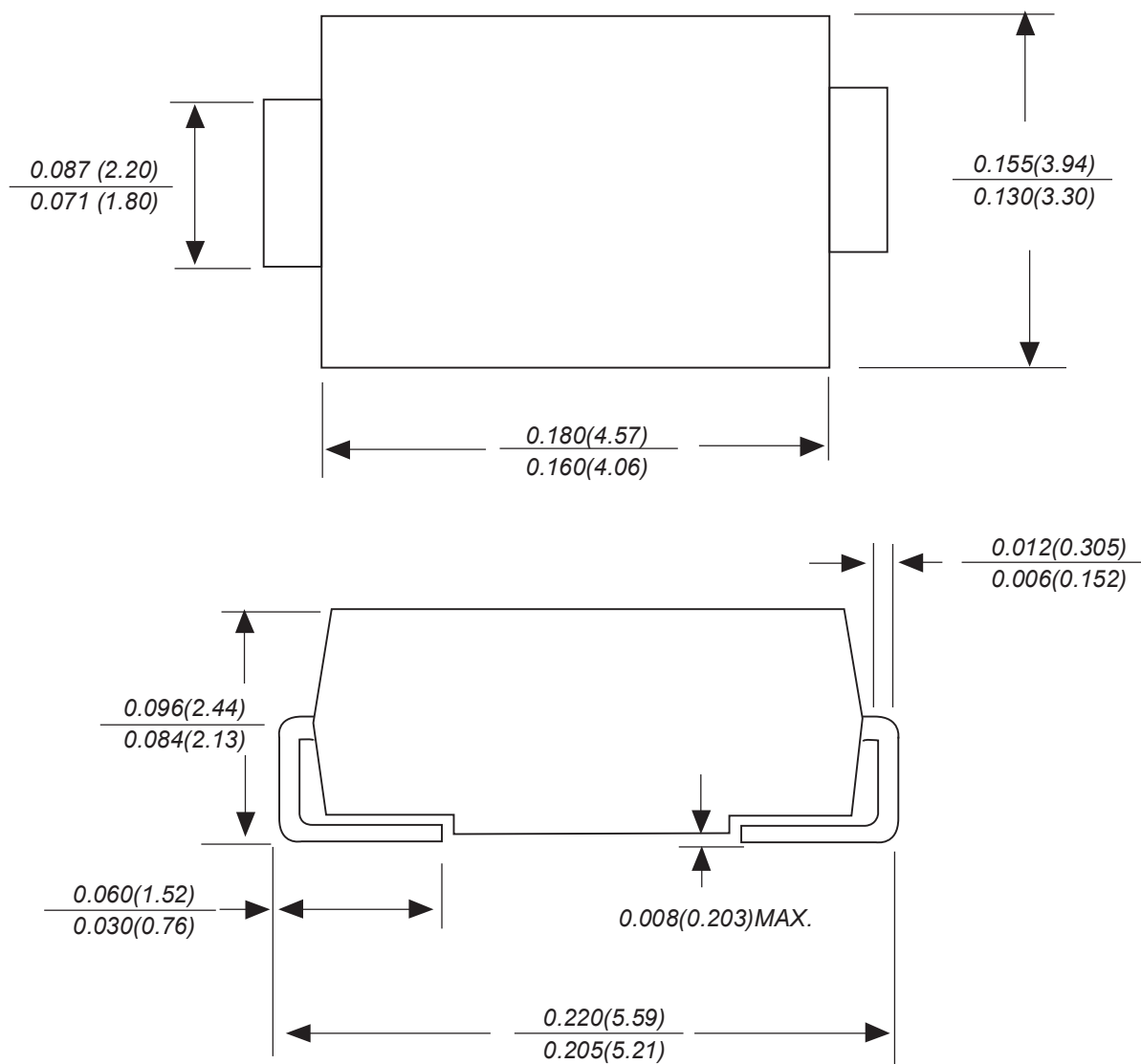


Fig. 6-Typical Junction Capacitance



Package Outline Dimensions

SMB



Dimensions in inches and (millimeters)



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