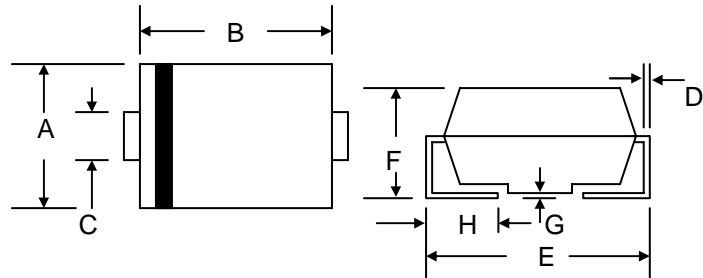


Features

- Glass Passivated Die Construction
- 600W Peak Pulse Power Dissipation
- 180V – 440V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band Except Bi-Directional
- Marking: Device Code
- Weight: 0.093 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 5**

SMB/DO-214AA		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.11
D	0.152	0.305
E	5.08	5.59
F	2.13	2.44
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

“C” Suffix Designates Bi-directional Devices
 “A” Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000µS Waveform (Note 1, 2) Figure 3	PPPM	600 Minimum	W
Peak Pulse Current on 10/1000µS Waveform (Note 1) Figure 4	IPPM	See Table 1	A
Steady State Power Dissipation (Note 4)	P _{M(AV)}	5.0	W
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 2, 3)	I _{FSM}	100	A
Typical Thermal Resistance, Junction to Lead (Note 5)	R _{θJL}	20	°C/W
Typical Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	100	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

- Note: 1. Non-repetitive current pulse per Figure 4 and derated above T_A = 25°C per Figure 1.
 2. Mounted on 5.0mm² (0.013mm thick) land area.
 3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.
 4. Lead temperature at 75°C.
 5. Mounted on minimum recommended pad layout.



Fig. 1 Pulse Derating Curve

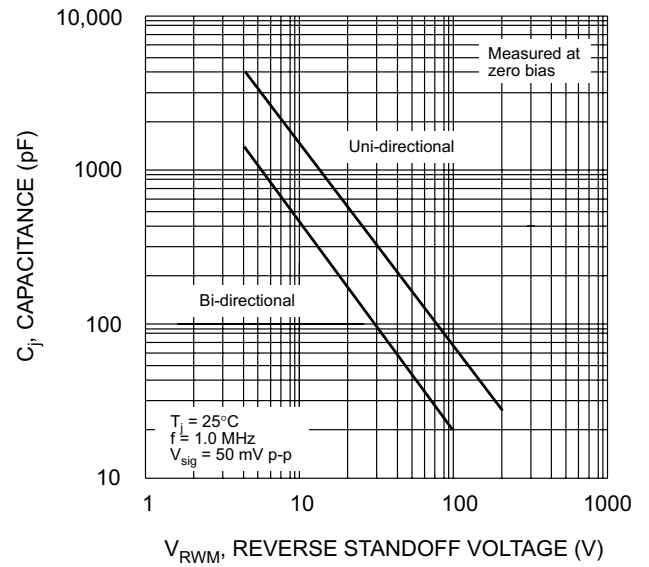


Fig. 2 Typical Junction Capacitance



Fig. 3 Pulse Rating Curve

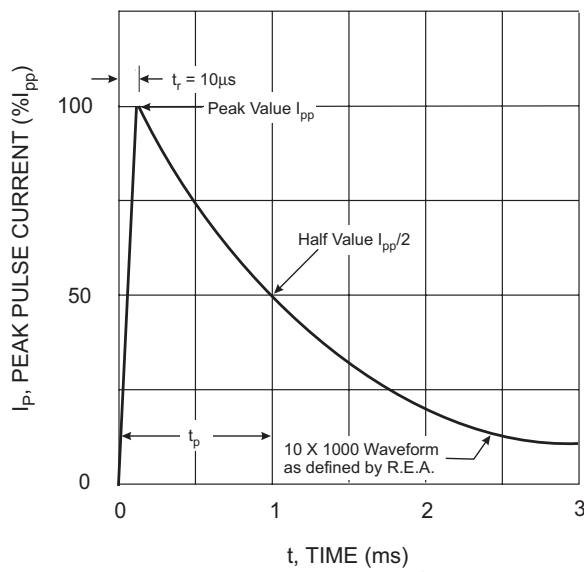


Fig. 4 Pulse Waveform

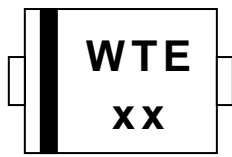
UNI-DIRECTIONAL 600 WATT SURFACE MOUNT TVS

UNI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
P6SMBJ180	PS	180.00	200.00	244.80	1	322.0	1.86	1
P6SMBJ180A	PT	180.00	200.00	220.00	1	292.0	2.06	1
P6SMBJ190	PU	190.00	211.00	258.40	1	340.0	1.76	1
P6SMBJ190A	PV	190.00	211.00	232.00	1	308.0	1.95	1
P6SMBJ200A	PX	200.00	224.00	247.00	1	324.0	1.85	1
P6SMBJ220A	QE	220.00	246.00	272.00	1	356.0	1.69	1
P6SMBJ250A	QF	250.00	279.00	309.00	1	405.0	1.48	1
P6SMBJ300A	QG	300.00	335.00	371.00	1	486.0	1.23	1
P6SMBJ350A	QH	350.00	391.00	432.00	1	567.0	1.06	1
P6SMBJ400A	QK	400.00	447.00	494.00	1	648.0	0.93	1
P6SMBJ440A	QL	440.00	492.00	543.00	1	713.0	0.84	1

BI-DIRECTIONAL 600 WATT SURFACE MOUNT TVS

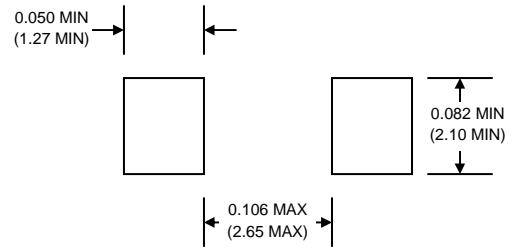
BI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
P6SMBJ180C	ES	180.00	200.00	244.80	1	322.0	1.86	1
P6SMBJ180CA	ET	180.00	200.00	220.00	1	292.0	2.06	1
P6SMBJ190C	EU	190.00	211.00	258.40	1	340.0	1.76	1
P6SMBJ190CA	EV	190.00	211.00	232.00	1	308.0	1.95	1
P6SMBJ200CA	EX	200.00	224.00	247.00	1	324.0	1.85	1
P6SMBJ220CA	FE	220.00	246.00	272.00	1	356.0	1.69	1
P6SMBJ250CA	FF	250.00	279.00	309.00	1	405.0	1.48	1
P6SMBJ300CA	FG	300.00	335.00	371.00	1	486.0	1.23	1
P6SMBJ350CA	FH	350.00	391.00	432.00	1	567.0	1.06	1
P6SMBJ400CA	FK	400.00	447.00	494.00	1	648.0	0.93	1
P6SMBJ440CA	FL	440.00	492.00	543.00	1	713.0	0.84	1

MARKING INFORMATION



Cathode = Polarity Band Except Bi-Directional Types
 WTE = Manufacturer's Logo
 xx = Device Code, See Page 3

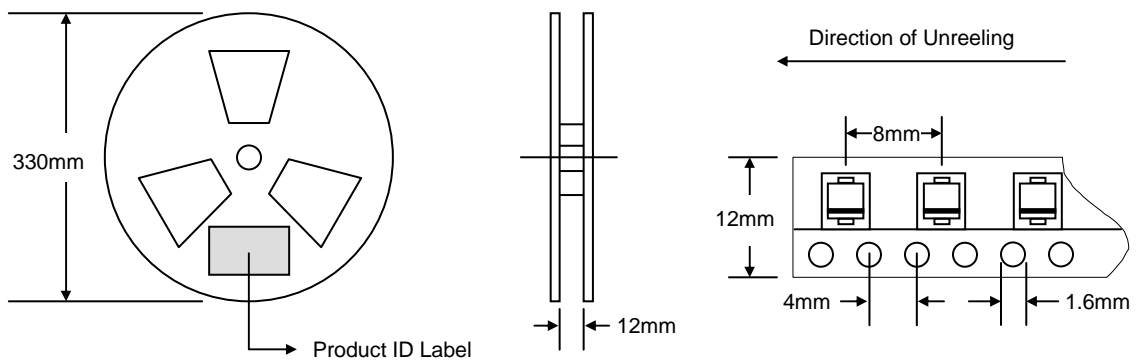
RECOMMENDED FOOTPRINT



inches(mm)

PACKAGING INFORMATION

TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	3,000	340 x 337 x 45	6,000	370 x 370 x 420	48,000	14.0

Note: 1. Paper reel, white or gray color.
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
P6SMBJxx-T3	SMB	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version, add "-LF" suffix to part number above. For example, P6SMBJ180-T3-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417

Email: sales@wontop.com

Internet: <http://www.wontop.com>

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