



TVS 瞬態電壓抑制二極管
Voltage : 180V - 440V

A6SMBJ180 - A6SMBJ440CA
600W Surface Mount Transient Voltage Suppressor

□ Feature

- ◆ Fast Response Time
- ◆ 180V-440V Stand-off Voltage
- ◆ Excellent Clamping Capability
- ◆ Glass Passivated Die Construction
- ◆ 600W Peak Pulse Power Dissipation
- ◆ Uni-and Bi-Directional Versions Available
- ◆ Plastic Case Material has UL Flammability Classification Rating 94V-0

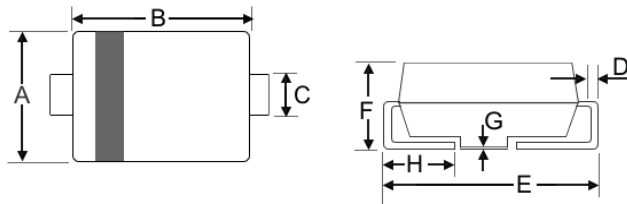
□ Mechanical Data

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

□ Dimension

Case: SMB/DO-214AA (mm)

Dim	Min	Max
A	3.3	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



"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.	P _{PPM}	600 Min.	W
Peak pulse current on 10/1000µS Waveform (note 1) Figure 4.	I _{PPM}	Table 1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 2.3)	I _{FSM}	100	A
Steady state power dissipation (note 4)	P _{M(AV)}	5.0	W
Typical thermal resistance, Junction to lead (note 6)	R _{θJL}	20	°C/W
		100	°C/W
Operating and Storage Temperature Range	T _J , T _{STG.}	-55~+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 copper pad to each terminal
 3. 8.3ms single half sine-wave cycle = 4 pulses per minutes maximum.
 4. Lead temperature at 75°C.
 5. Peak pulse power waveform is 10/1000µS.
 6. Mounted on minimum recommended pad layout.

特性:

1. 高效能保護器件; 2. 吸收反向瞬態脈衝; 3. 漏電流低擊穿電壓偏差小; 4. 電路異常下反應快.

Figure Case SMB/DO-214AA



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UNI-Directional 600 Watt Surface Mount TVS (Table 1)

UNI Directional	Device Marking	Reverse Stand-off Voltage	Breakdown Voltage $V_{BR}(V)$		Test Current I_T	Max. Clamping Voltage	Peak Pulse Current	Reverse Leakage @ V_{RWM}
Part No.	Code	$V_{RWM}(V)$	Min. @ I_T	Max. @ I_T	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR (μA)
A6SMBJ180	PS	180	200	244.8	1	322.0	1.86	1.0
A6SMBJ180A	PT	180	200	220.0	1	392.0	2.06	1.0
A6SMBJ190	PU	190	211	258.4	1	340.0	1.76	1.0
A6SMBJ190A	PV	190	211	232.0	1	308.0	1.95	1.0
A6SMBJ200A	PX	200	224	247.0	1	324.0	1.85	1.0
A6SMBJ220A	QE	220	246	274.0	1	356.0	1.69	1.0
A6SMBJ250A	QF	250	279	309.0	1	405.0	1.48	1.0
A6SMBJ300A	QG	300	335	371.0	1	486.0	1.23	1.0
A6SMBJ350A	QH	350	391	432.0	1	567.0	1.06	1.0
A6SMBJ400A	QK	400	447	494.0	1	648.0	0.93	1.0
A6SMBJ440A	QL	440	492	543.0	1	713.0	0.84	1.0

BI-Directional 400 Watt Surface Mount TVS (Table 1)

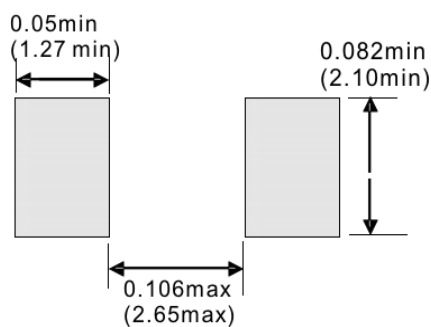
BI-Directional	Device Marking	Reverse Stand-off Voltage	Breakdown Voltage $V_{BR}(V)$		Test Current I_T	Max. Clamping Voltage	Peak Pulse Current	Reverse Leakage @ V_{RWM}
Part No.	Code	$V_{RWM}(V)$	Min. @ I_T	Max. @ I_T	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR (μA)
A6SMBJ180C	ES	180	200	244.8	1	322.0	1.86	1.0
A6SMBJ180CA	ST	180	200	220.0	1	392.0	2.06	1.0
A6SMBJ190C	SU	190	211	258.4	1	340.0	1.76	1.0
A6SMBJ190CA	SV	190	211	232.0	1	308.0	1.95	1.0
A6SMBJ200CA	SX	200	224	247.0	1	324.0	1.85	1.0
A6SMBJ220CA	FE	220	246	274.0	1	356.0	1.69	1.0
A6SMBJ250CA	FF	250	279	309.0	1	405.0	1.48	1.0
A6SMBJ300CA	FG	300	335	371.0	1	486.0	1.23	1.0
A6SMBJ350CA	FH	350	391	432.0	1	567.0	1.06	1.0
A6SMBJ400CA	FK	400	447	494.0	1	648.0	0.93	1.0
A6SMBJ440CA	FL	440	492	543.0	1	713.0	0.84	1.0

"C" : Suffix designates Bi-directional Devices

"A" : Suffix designates $\pm 5\%$ Tolerance Devices

"No" : Suffix designates $\pm 10\%$ Tolerance Devices

Recommended Footprint



Marking Information



Cathode: Polarity Band Except Bi-Direction Type
XXX: Device Code see Marking Code.

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Electrical Characteristics Curve

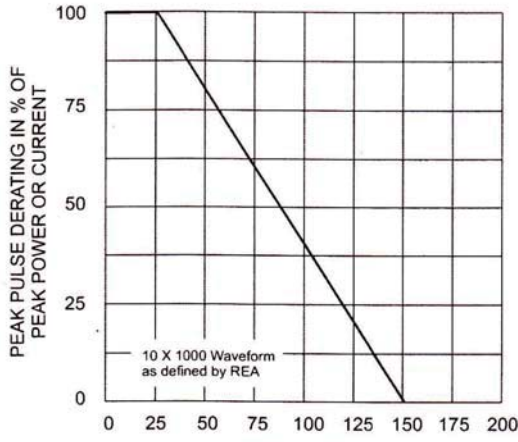


Fig. 1 Pulse Derating Curve

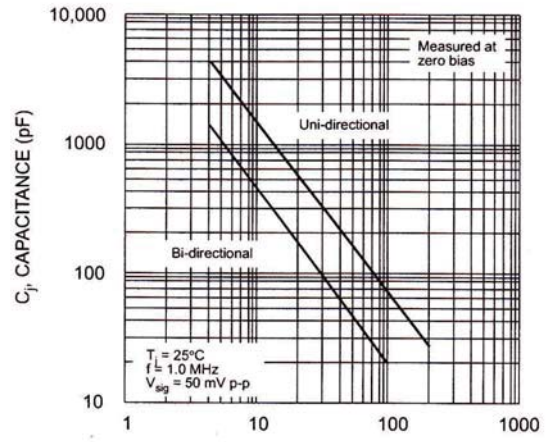


Fig. 2 Typical Junction Capacitance

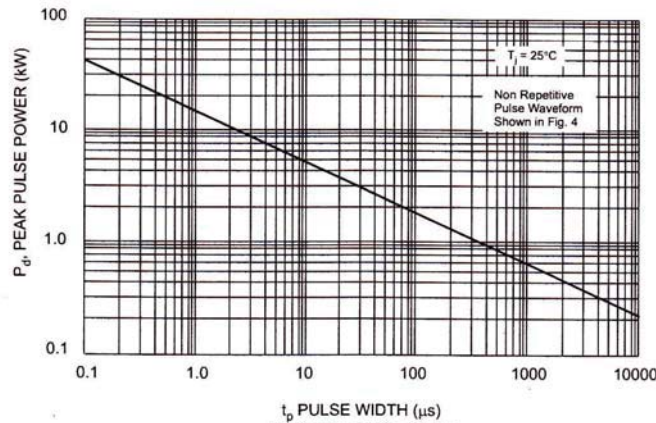


Fig. 3 Pulse Rating Curve

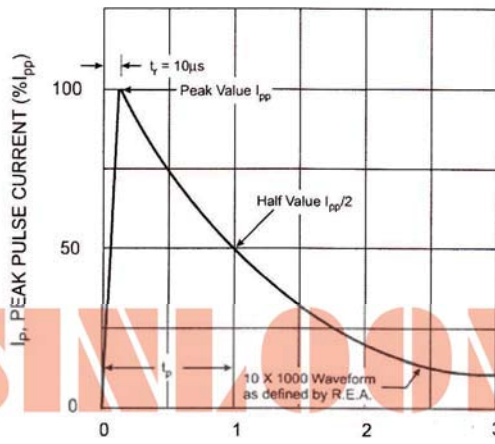


Fig. 4 Pulse Waveform



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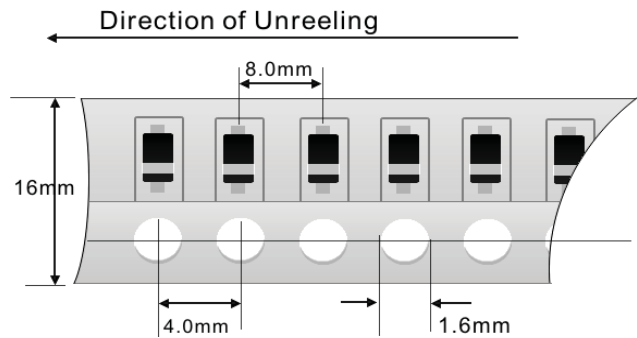
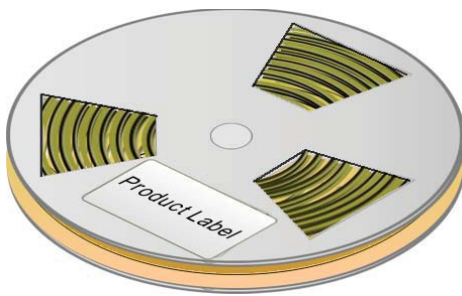
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Packaging Information

Dimension Reel Tape	Quantity (Pcs)	Inner Box Size L x W x H	Quantity (Pcs)	Carton Size L x W x H	Quantity (Pcs)	Gross Weight
330 mm	3,000	340 x 337 x 45 mm	6,000	370 x 370 x 420 mm	48,000	14.0Kg

- Note:
1. Paper Reel, White or gray color.
 2. Components are packed in accordance with EIA standard 481- and 481-2
 3. Shipping quantity given is for minimum packing quantity only.
- For minimum order quantity, please consult the Sales Department.

Tape Reel 330 x 12mm



Carton:



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 ※Mayloon characteristic parameters of electronic product specification changes or updates without notice to improve

