



TVS 瞬態電壓抑制二極管
Voltage : 180V - 440V

A4SMCJ180 - A4SMCJ440CA

400W Surface Mount Transient Voltage Suppressor

Feature

- ◆ Fast Response Time
- ◆ 180V-440V Stand-off Voltage
- ◆ Excellent Clamping Capability
- ◆ Glass Passivated Die Construction
- ◆ 400W Peak Pulse Power Dissipation
- ◆ Uni-and Bi-Directional Versions Available
- ◆ Plastic Case Material has UL Flammability Classification Rating 94V-0

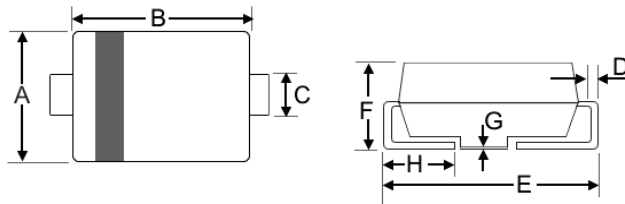
Mechanical Data

- ◆ Weight: 0.064 grams (approx)
- ◆ Marking: Device Marking Code
- ◆ Case: SMA/DO-214AC, 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: SMA/DO-214AC (mm)

Dim	Min	Max
A	2.5	2.9
B	4.0	4.6
C	1.2	1.6
D	0.152	0.305
E	4.80	5.28
F	2.0	2.44
G	0.510	0.203
H	0.76	1.52



"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}	400 Min.	W
Peak pulse current on 10/1000µS Waveform (note 1) Figure 4.	I _{PPM}	Table 1	A
Peak forward surge current (note 3)	I _{FSM}	40	A
Steady state power dissipation (note 4)	P _{M(AV)}	1.0	W
Typical thermal resistance, Junction to lead (note 6)	R _{θJL}	30	°C/W
		120	°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 SMA/DO-214AC



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UNI-Directional 400 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)
A4SMCJ180	SS	180	200	244.8	1	322.0	1.24	1.0
A4SMCJ180A	ST	180	200	220.0	1	392.0	1.37	1.0
A4SMCJ190	SU	190	211	258.4	1	340.0	1.18	1.0
A4SMCJ190A	SV	190	211	232.0	1	308.0	1.30	1.0
A4SMCJ200A	SX	200	224	247.0	1	324.0	1.23	1.0
A4SMCJ220A	GE	220	246	274.0	1	356.0	1.12	1.0
A4SMCJ250A	GF	250	279	309.0	1	405.0	0.99	1.0
A4SMCJ300A	GG	300	335	371.0	1	486.0	0.82	1.0
A4SMCJ350A	GH	350	391	432.0	1	567.0	0.71	1.0
A4SMCJ400A	GK	400	447	494.0	1	648.0	0.62	1.0
A4SMCJ440A	GL	440	492	543.0	1	713.0	0.56	1.0

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

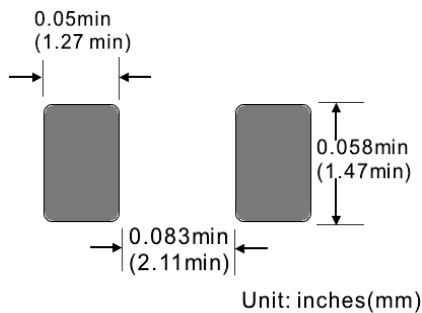
BI-Directional	Device Marking	Reverse Stand-off Voltage	Breakdown Voltage $V_{BR}(V)$		Test Current I_T	Max. Clamping Voltage	Peak Pulse Current	Reverse Leakage @ V_{RWM}
Part No.	Code	$V_{RWM}(V)$	Min. @ I_T	Max. @ I_T	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR (μA)
A4SMCJ180C	YS	180	200	244.8	1	322.0	1.24	1.0
A4SMCJ180CA	YT	180	200	220.0	1	392.0	1.37	1.0
A4SMCJ190C	YU	190	211	258.4	1	340.0	1.18	1.0
A4SMCJ190CA	YV	190	211	232.0	1	308.0	1.30	1.0
A4SMCJ200CA	YX	200	224	247.0	1	324.0	1.23	1.0
A4SMCJ220CA	ZE	220	246	274.0	1	356.0	1.12	1.0
A4SMCJ250CA	ZF	250	279	309.0	1	405.0	0.99	1.0
A4SMCJ300CA	ZG	300	335	371.0	1	486.0	0.82	1.0
A4SMCJ350CA	ZH	350	391	432.0	1	567.0	0.71	1.0
A4SMCJ400CA	ZK	400	447	494.0	1	648.0	0.62	1.0
A4SMCJ440CA	ZL	440	492	543.0	1	713.0	0.56	1.0

"C" : Suffix designates Bi-directional Devices

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

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Recommended Footprint



Marking Information



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

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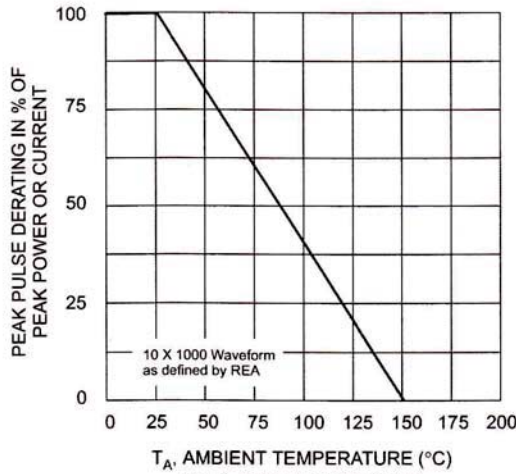




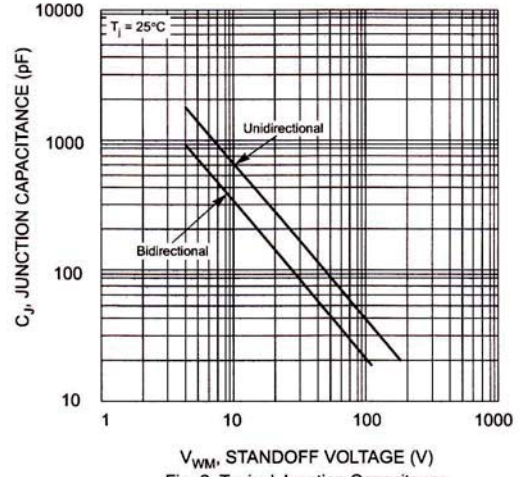
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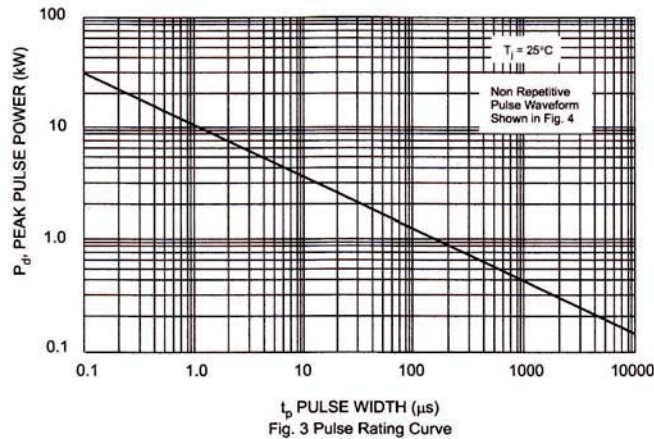
□ Electrical Characteristics Curve



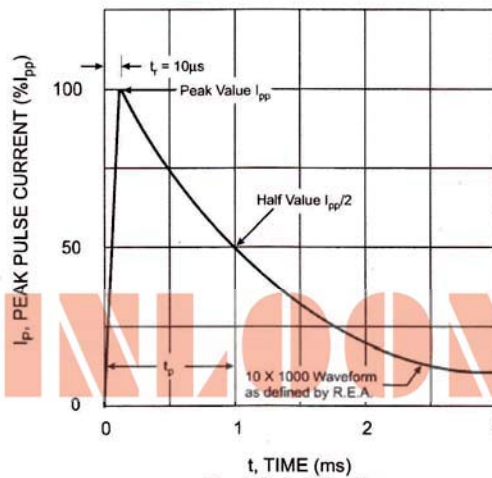
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Pulse Derating Curve



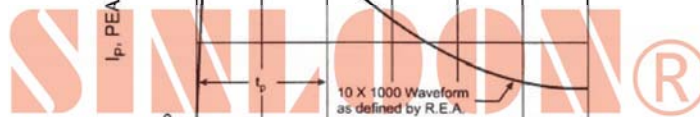
V_{WM} , STANDOFF VOLTAGE (V)
Fig. 2 Typical Junction Capacitance



t_p PULSE WIDTH (μs)
Fig. 3 Pulse Rating Curve



t, TIME (ms)
Fig. 4 Pulse Waveform



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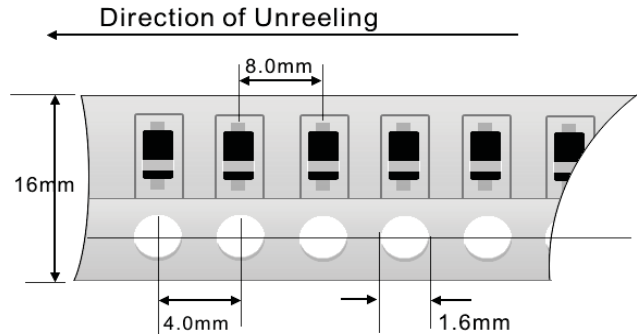
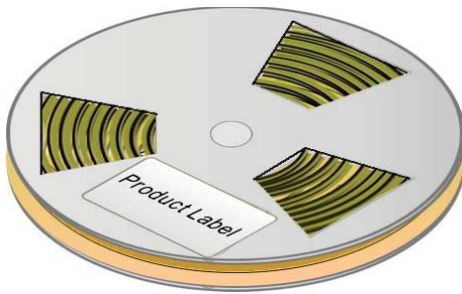
Packaging Information

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	7,500	340 x 337 x 45 mm	15,000	370 x 370 x 420 mm	120,000	17.5Kg

- 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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※美隆公司產品規格及其特性參數的改變或更新恕不另行通知。
※Mayloon characteristic parameters of electronic product specification changes or updates without notice to improve

