



TVS 瞬態電壓抑制二極管  
Voltage : 180V - 440V

1.5SMCJ180 - 1.5SMCJ440CA

1500W Surface Mount Transient Voltage Suppressor

□ Feature

- ◆ Fast Response Time
- ◆ 180V-440V Stand-off Voltage
- ◆ Excellent Clamping Capability
- ◆ Glass Passivated Die Construction
- ◆ 1500W Peak Pulse Power Dissipation
- ◆ Uni-and Bi-Directional Versions Available
- ◆ Plastic Case Material has UL Flammability Classification Rating 94V-0

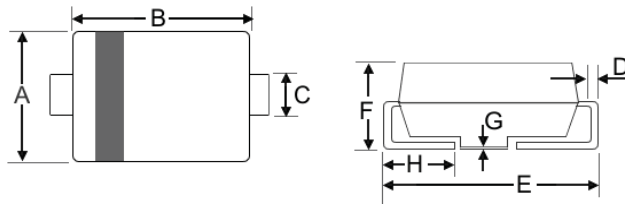
□ Mechanical Data

- ◆ Weight: 0.21 grams (approx)
- ◆ Marking: Device Marking Code
- ◆ Case: SMC/DO-214AB, 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: SMC/DO-214AB (mm)

Dim	Min	Max
A	5.59	6.22
B	6.6	7.11
C	2.75	3.25
D	0.152	0.305
E	7.75	8.13
F	2.0	2.62
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<sub>A</sub>=25°C unless otherwise specified

CHARACTERISTIC	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000µS Waveform (note 1,2) Figure 3.	P <sub>PPM</sub>	1500 Min.	W
Peak pulse current on 10/1000µS Waveform (note 1) Figure 4.	I <sub>PPM</sub>	Table 1	A
Steady state power dissipation (Note 4.)	P <sub>M(AV)</sub>	6.5	W
Peak forward surge current 8.3ms single half sine-wave superimposed on ratedload (JEDEC Mathod) (Note2,3.)	I <sub>FSM</sub>	200	A
Typical Thermal Resistance	R <sub>θJL</sub>	15	°C/W
	R <sub>θJA</sub>	90	
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG.</sub>	-65~+150	°C

- Note:
1. Non-repetitive current pulse per Figure 4 and derated above T<sub>A</sub> =25°C per Figure 1.
  2. Mounted on 8.0mm<sup>2</sup> copper pad to each terminal
  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. Peak pulse power waveform is 10/1000µS.
  6. Mounted on minimum recommended pad layout.

Figure Case SMC/DO-214AB



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**Uni-Direction 1500 Watt Surface Mount TVS** (Table 1)

Uni-Directional	Device Marking	Reverse Stand-off Voltage $V_{RWM}(V)$	Breakdown Voltage $V_{BR}(V)$		Test Current $I_T$ (mA)	Max. Clamping Voltage $I_{pp} V_c(V)$	Peak Pulse Current $I_{pp}(A)$	Reverse Leakage @ $V_{RWM}$ IR ( $\mu A$ )
			Min. @ $I_T$	Max. @ $I_T$				
Part No.	Code	$V_{RWM}(V)$	Min. @ $I_T$	Max. @ $I_T$	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR ( $\mu A$ )
1.5SMCJ180	GHS	180	200	244.8	1	322.0	4.66	1.0
1.5SMCJ180A	GHT	180	220	220.0	1	292.0	5.14	1.0
1.5SMCJ190	GHU	190	211	258.4	1	340.0	4.41	1.0
1.5SMCJ190A	GHV	190	211	232.0	1	308.0	4.87	1.0
1.5SMCJ200A	GHX	200	224	247.0	1	324.0	4.63	1.0
1.5SMCJ220A	GIE	220	246	272.0	1	356.0	4.21	1.0
1.5SMCJ250A	GIF	250	279	309.0	1	405.0	3.70	1.0
1.5SMCJ300A	GIG	300	335	371.0	1	486.0	3.09	1.0
1.5SMCJ350A	GIH	350	391	432.0	1	567.0	2.65	1.0
1.5SMCJ400A	GIK	400	447	494.0	1	648.0	2.31	1.0
1.5SMCJ440A	GIL	440	492	543.0	1	713.0	2.10	1.0

**BI-Direction 1500 Watt Surface Mount TVS** (Table 1)

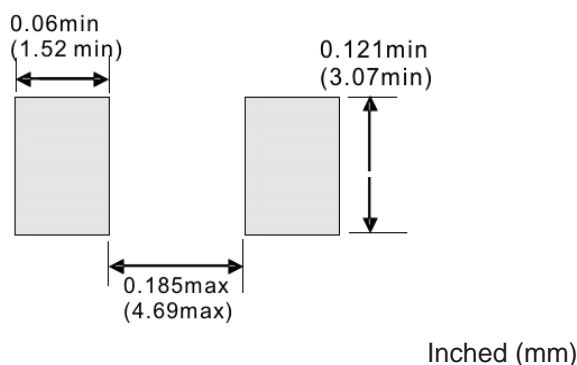
BI-Directional	Device Marking	Reverse Stand-off Voltage $V_{RWM}(V)$	Breakdown Voltage $V_{BR}(V)$		Test Current $I_T$ (mA)	Max. Clamping Voltage $I_{pp} V_c(V)$	Peak Pulse Current $I_{pp}(A)$	Reverse Leakage @ $V_{RWM}$ IR ( $\mu A$ )
			Min. @ $I_T$	Max. @ $I_T$				
Part No.	Code	$V_{RWM}(V)$	Min. @ $I_T$	Max. @ $I_T$	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR ( $\mu A$ )
1.5SMCJ180C	BHS	180	200	244.8	1	322.0	4.66	1.0
1.5SMCJ180CA	BHT	180	220	220.0	1	292.0	5.14	1.0
1.5SMCJ190C	BHU	190	211	258.4	1	340.0	4.41	1.0
1.5SMCJ190CA	BHV	190	211	232.0	1	308.0	4.87	1.0
1.5SMCJ200CA	BHX	200	224	247.0	1	324.0	4.63	1.0
1.5SMCJ220CA	BIE	220	246	272.0	1	356.0	4.21	1.0
1.5SMCJ250CA	BIF	250	279	309.0	1	405.0	3.70	1.0
1.5SMCJ300CA	BIG	300	335	371.0	1	486.0	3.09	1.0
1.5SMCJ350CA	BIH	350	391	432.0	1	567.0	2.65	1.0
1.5SMCJ400CA	BIK	400	447	494.0	1	648.0	2.31	1.0
1.5SMCJ440CA	BIL	440	492	543.0	1	713.0	2.10	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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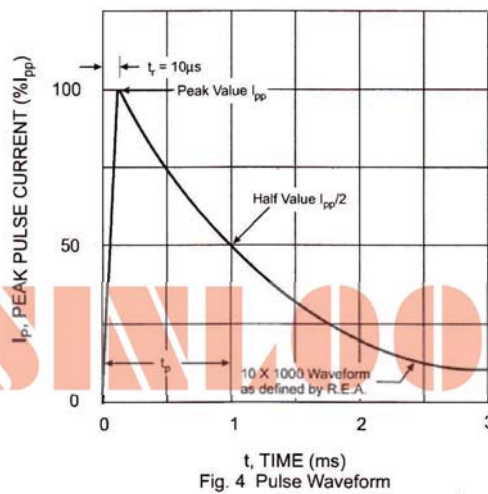
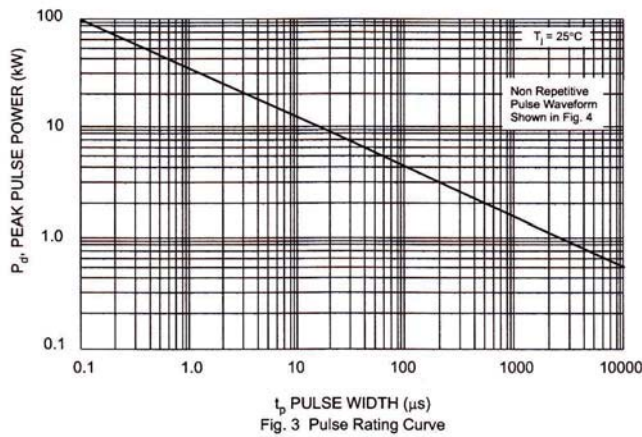
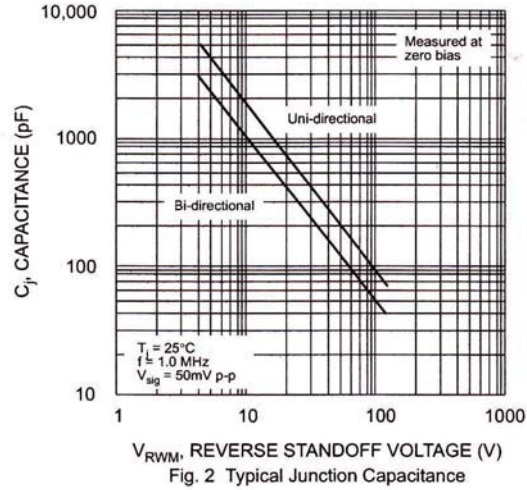
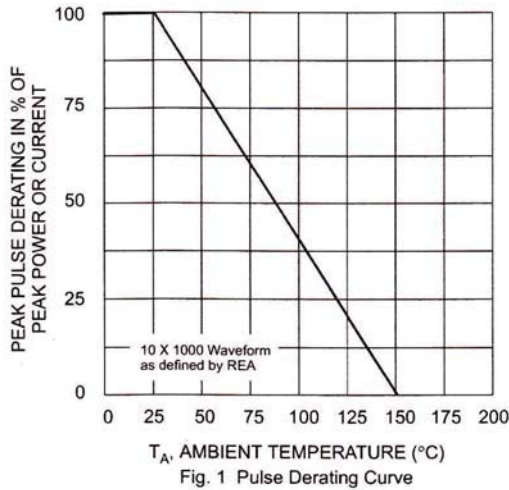
品質承諾標誌  
QUALITY COMMITMENT

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Electrical Characteristics Curve



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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	19.0kg

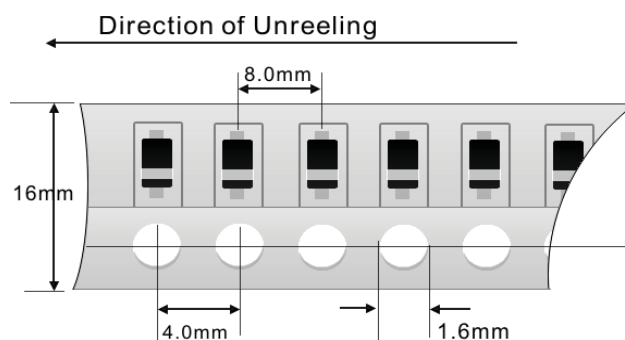
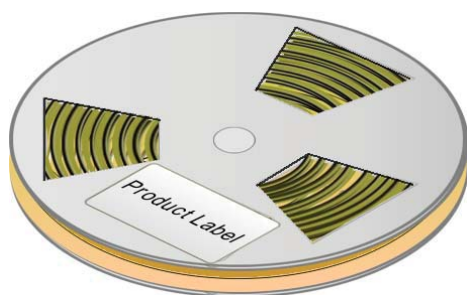
Note:

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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※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

