

SINLOON®

TVS 瞬態電壓抑制二極管  
Voltage : 180V - 220V

3.0SMCJ180 - 3.0SMCJ220CA

3000W Surface Mount Transient Voltage Suppressor

□ Feature

- ◆ Fast Response Time
- ◆ 180V-220V Stand-off Voltage
- ◆ Excellent Clamping Capability
- ◆ Glass Passivated Die Construction
- ◆ 3000W 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

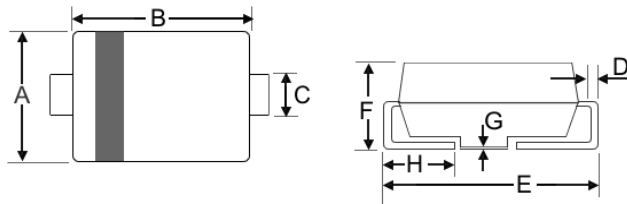


Figure Case SMC/DO-214AB



"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>	3000 Min.	W
Peak pulse current on 10/1000µS Waveform (note 1) Figure 4.	I <sub>PPM</sub>	Table 1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on ratedload (JEDEC Mathod) (Note2,3.)	I <sub>FSM</sub>	100	A
Operating and Storage Temperature Range	T <sub>i</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.

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**3.0SMCJ180 - 3.0SMCJ440CA**

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**3000W Surface Mount Transient Voltage Suppressor**

**UNI-Directional 3000 Watt Surface Mount TVS** (Table 1)

Uni-Directional	Device Marking	Reverse Stand-off Voltage	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 ( $\mu A$ )
3.0SMCJ180	HHS	180	198	253.8	1	322.0	9.30	5.0
3.0SMCJ180A	HHT	180	198	230.4	1	292.0	10.30	5.0
3.0SMCJ190	HHU	190	209	267.9	1	340.0	8.80	5.0
3.0SMCJ190A	HHV	190	209	243.2	1	308.0	9.70	5.0
3.0SMCJ200	HHW	200	220	282.0	1	358.0	8.40	5.0
3.0SMCJ200A	HHX	200	220	256.0	1	324.0	9.30	5.0
3.0SMCJ210	HHY	210	231	296.1	1	376.0	7.80	5.0
3.0SMCJ210A	HHZ	210	231	268.8	1	340.0	8.80	5.0
3.0SMCJ220	HID	220	242	310.2	1	394.0	7.60	5.0
3.0SMCJ220A	HIE	220	242	281.6	1	356.0	8.40	5.0

**BI-Directional 3000 Watt Surface Mount TVS** (Table 1)

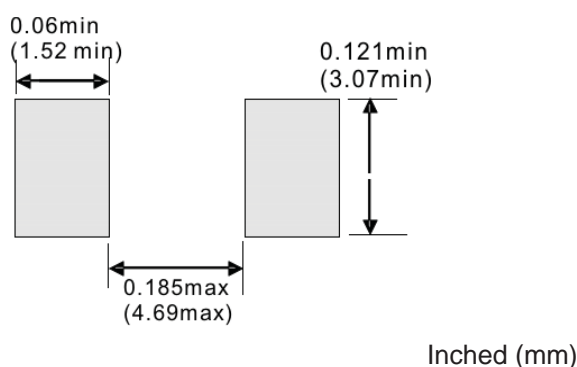
BI-Directional	Device Marking	Reverse Stand-off Voltage	Breakdown Voltage $V_{BR}(V)$		Test Current $I_T$ (mA)	Max. Clamping Voltage $I_{pp} V_c(V)$	Peak Pulse Current $I_{pp}(A)$	Reverse Leakage @ $V_{RWM}$ IR ( $\mu A$ )
			Min. @ $I_T$	Max. @ $I_T$				
Part No.	Code	$V_{RWM}(V)$	Min. @ $I_T$	Max. @ $I_T$	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR ( $\mu A$ )
3.0SMCJ180C	IHS	180	198	253.8	1	322.0	9.30	5.0
3.0SMCJ180CA	IHT	180	198	230.4	1	292.0	10.30	5.0
3.0SMCJ190C	IHU	190	209	267.9	1	340.0	8.80	5.0
3.0SMCJ190CA	IHV	190	209	243.2	1	308.0	9.70	5.0
3.0SMCJ200C	IHW	200	220	282.0	1	358.0	8.40	5.0
3.0SMCJ200CA	IHX	200	220	256.0	1	324.0	9.30	5.0
3.0SMCJ210C	IHY	210	231	296.1	1	376.0	7.80	5.0
3.0SMCJ210CA	IHZ	210	231	268.8	1	340.0	8.80	5.0
3.0SMCJ220C	IID	220	242	310.2	1	394.0	7.60	5.0
3.0SMCJ220CA	IIE	220	242	281.6	1	356.0	8.40	5.0

"C" : Suffix designates Bi-directional Devices

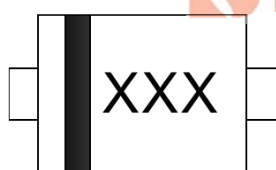
"A" : Suffix designates  $\pm 5\%$  Tolerance Devices

"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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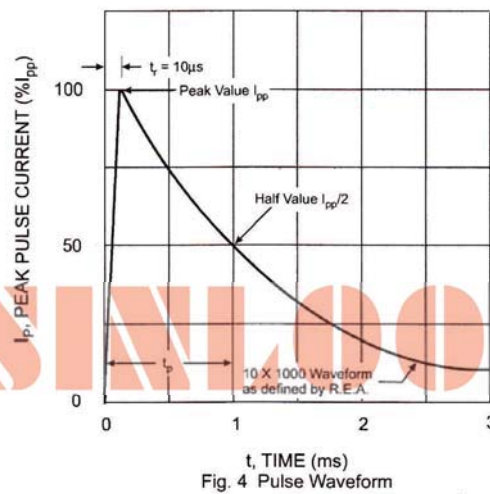
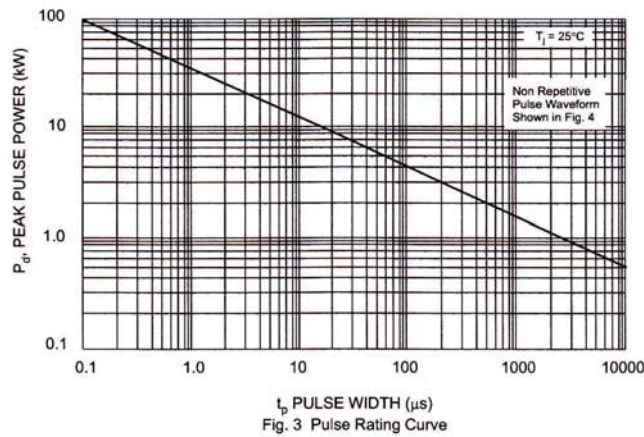
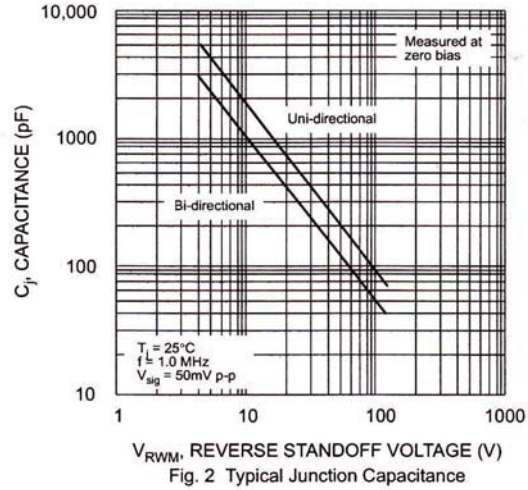
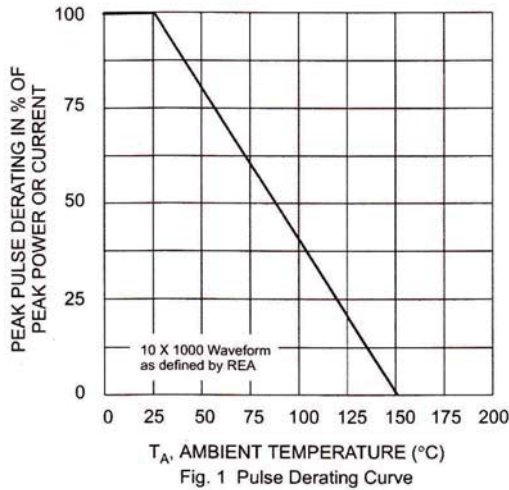




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Electrical Characteristics Curve



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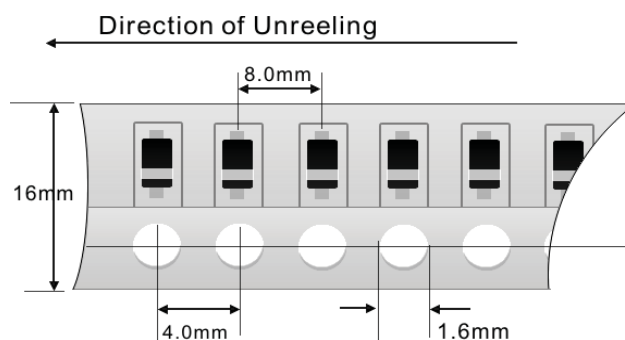
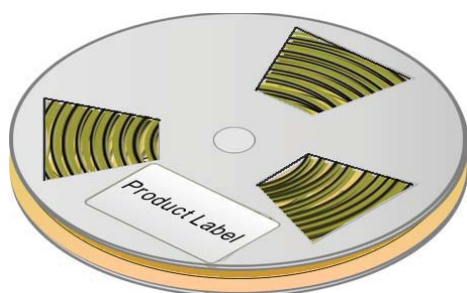
**Packaging Information**

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:



※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

