

SINLOON®

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

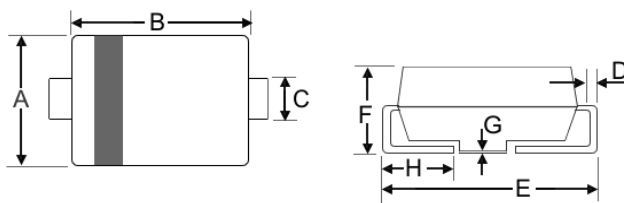
□ Mechanical Data

- ◆ 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 $\pm 5\%$ Tolerance Devices
 "No" : Suffix designates $\pm 10\%$ Tolerance Devices

□ Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

CHARACTERISTIC	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000 μS Waveform (note 1,2) Figure 3.	P_{PPM}	1500 Min.	W
Peak pulse current on 10/1000 μS Waveform (note 1) Figure 4.	I_{PPM}	Table 1	A
Steady state power dissipation (Note 4.)	$P_{M(AV)}$	6.5	W
Peak forward surge current 8.3ms single half sine-wave superimposed on ratedload (JEDEC Mathod) (Note2,3.)	I_{FSM}	200	A
Typical Thermal Resistance	$R_{\theta JL}$	15	$^\circ\text{C/W}$
	$R_{\theta JA}$	90	
Operating and Storage Temperature Range	$T_j, T_{STG.}$	-65~+150	$^\circ\text{C}$

- Note:
1. Non-repetitive current pulse per Figure 4 and derated above $T_A=25^\circ\text{C}$ per Figure 1.
 2. Mounted on 8.0mm² 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 10/1000 μS .
 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	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)
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)

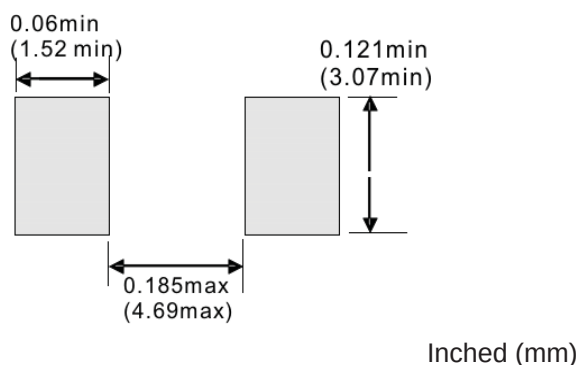
Bi-Directional	Device Marking	Reverse Stand-off Voltage	Breakdown Voltage $V_{BR}(V)$		Test Current I_T	Max. Clamping Voltage	Peak Pulse Current	Reverse Leakage @ V_{RWM}
Part No.	Code	$V_{RWM}(V)$	Min. @ I_T	Max. @ I_T	(mA)	$I_{pp} V_c(V)$	$I_{pp}(A)$	IR (μA)
1.5SMCJ180C	BHS	180	200	244.8	1	322.0	4.66	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

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☐ Recommended Footprint



☐ Marking Information



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

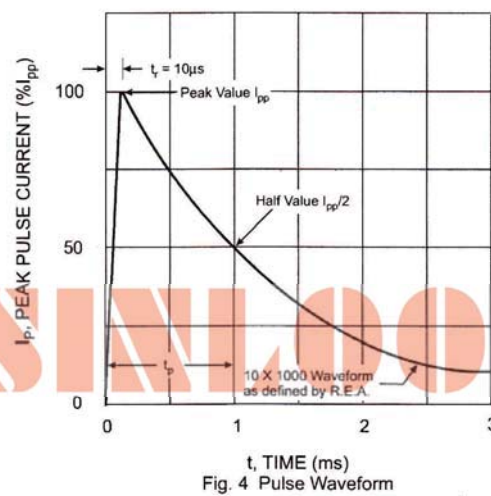
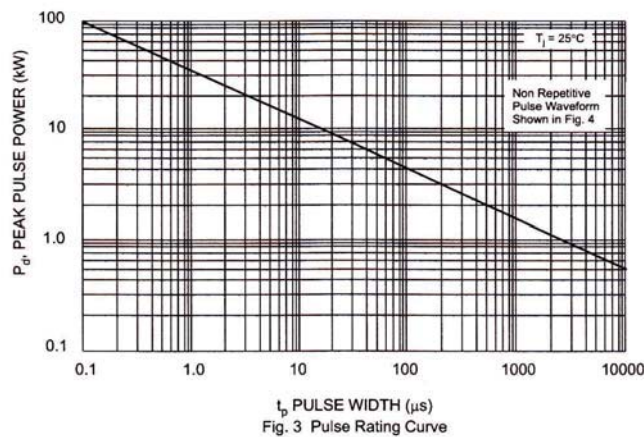
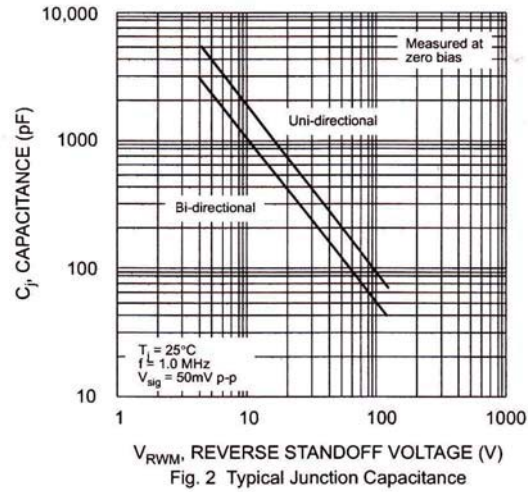
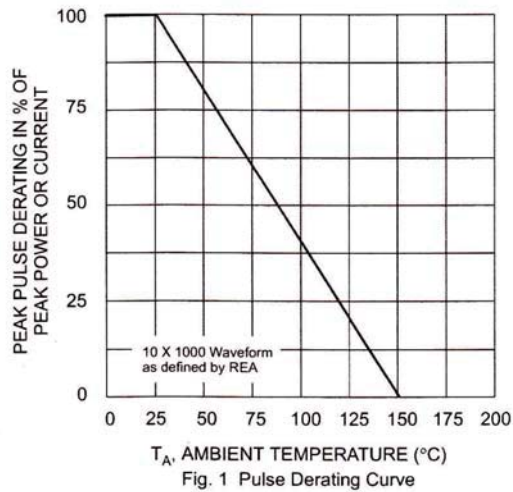
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□ Electrical Characteristics Curve



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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

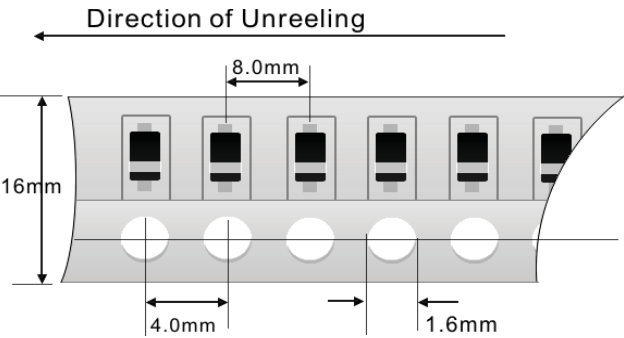
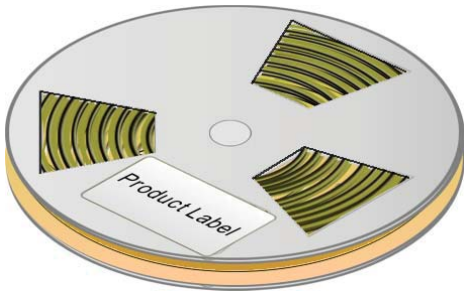
Note:

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