



# THE DATASHEET OF SM8S33A-TP





Micro Commercial Components



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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

SM8S14A
THRU
SM8S43A

Features

- Low Leakage
Glass passivated junction
Excellent clamping capability
Uni-directional polarity
Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
Halogen free available upon request by adding suffix "-HF"
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1
Polarity: Heatsink is anode
Meet ISO7637-2 5a surge specification
AEC-Q101 Qualified

Maximum Rating:

- Operating Temperature: -55°C to +175°C
Storage Temperature: -55°C to +175°C

6600 Watt
Transient Voltage
Suppressors
14 to 43 Volts

DO-218AB

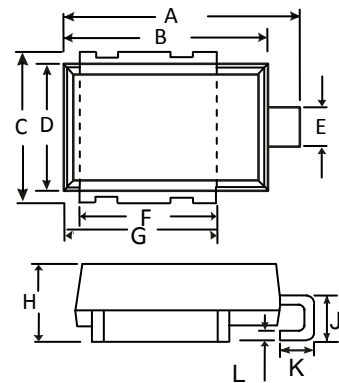


Table with 5 columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A through L.

SUGGESTED SOLDER
PAD LAYOUT

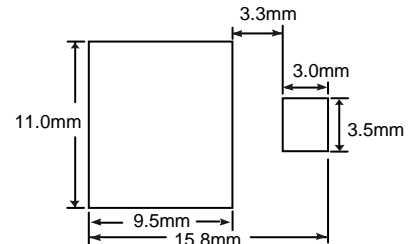


Table with 4 columns: Parameter, Symbol, Value, and Note. Rows for Peak Pulse Current, Peak Power Dissipation, Peak Forward Surge Current, and Power Dissipation.

- Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Non-repetitive current pulse, per Fig.2 and derated above TA=25°C per Fig.1
3. Peak forward surge current 8.3 ms single half sine

# SM8S14A THRU SM8S43A

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Part Number	Breakdown Voltage $V_{BR}$ @ $I_T$			Maximum Reverse Leakage $I_R$ @ $V_{RWM}$ ( $\mu\text{A}$ )	Maximum $I_R$ @ $V_{RWM}$ $T_J=175$ ( $\mu\text{A}$ )	Working Peak Reverse Voltage $V_{RWM}$ (V)	Maximum Reverse Surge Current $I_{PP}$ (A) <sup>(1)</sup>	Maximum Clamping Voltage $V_C$ @ $I_{PP}$ (V)
	Min (V)	Max (V)	$I_T$ (mA)					
SM8S14A	15.60	17.20	5	10	150	14	284.0	23.2
SM8S15A	16.70	18.50	5	10	150	15	270.0	24.4
SM8S16A	17.80	19.70	5	10	150	16	254.0	26.0
SM8S17A	18.90	20.90	5	10	150	17	239.0	27.6
SM8S18A	20.00	22.10	5	10	150	18	226.0	29.2
SM8S20A	22.20	24.50	5	10	150	20	204.0	32.4
SM8S22A	24.40	26.90	5	10	150	22	186.0	35.5
SM8S24A	26.70	29.50	5	10	150	24	170.0	38.9
SM8S26A	28.90	31.90	5	10	150	26	157.0	42.1
SM8S28A	31.10	34.40	5	10	150	28	145.0	45.4
SM8S30A	33.30	36.80	5	10	150	30	136.0	48.4
SM8S33A	36.70	40.60	5	10	150	33	124.0	53.3
SM8S36A	40.00	44.20	5	10	150	36	114.0	58.1
SM8S40A	44.40	49.10	5	10	150	40	102.0	64.5
SM8S43A	47.80	52.80	5	10	150	43	95.1	69.4

NOTE 1: Surge current waveform is defined at 10/1000uS waveform

## Ratings and Characteristics Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

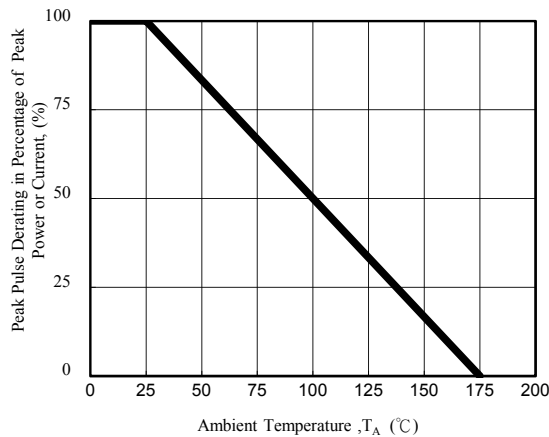


Fig. 1 - Pulse Derating Curve

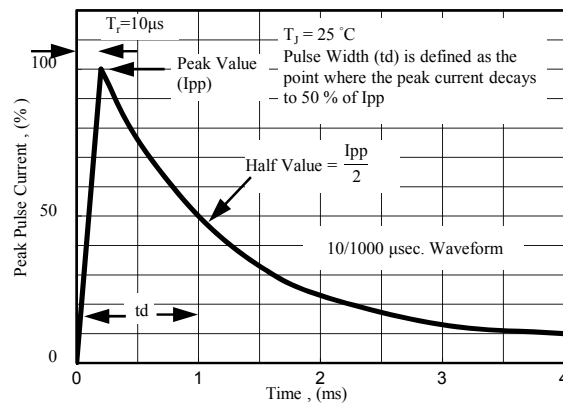


Fig. 2 - Pulse Waveform

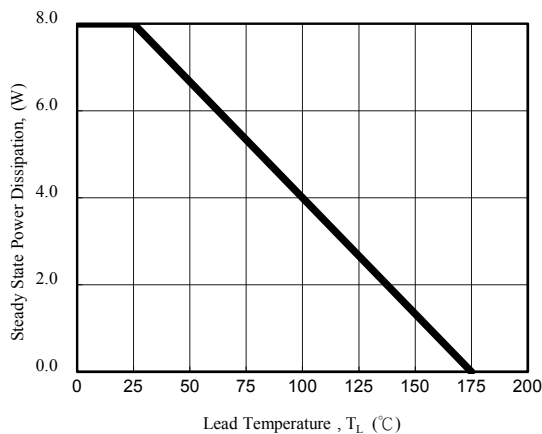


Fig. 3 - Steady State Power Derating Curve

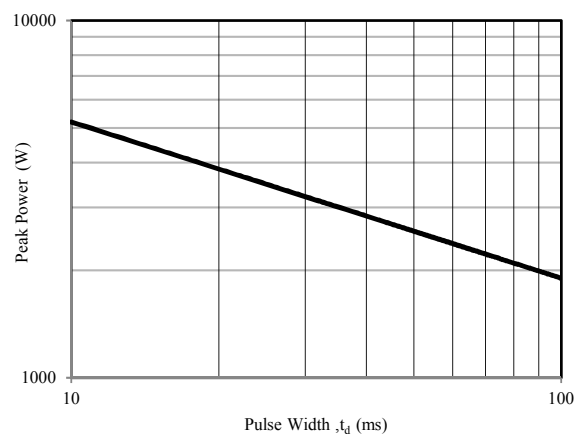


Fig. 4 - Peak Pulse Power Rating Curve



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## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 750pcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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