



Micro Commercial Components



Micro Commercial Components
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

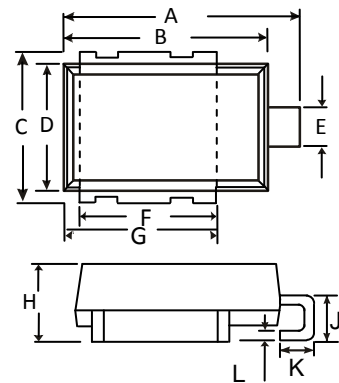


Table with 5 columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A through L.

SUGGESTED SOLDER
PAD LAYOUT

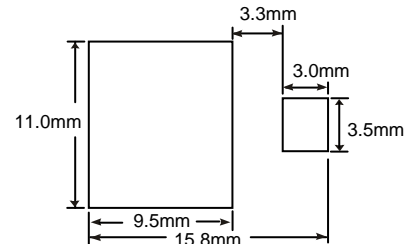


Table with 4 columns: Parameter, Symbol, Value, and Note. Rows for Peak Pulse Current, Peak Power Dissipation, Peak Forward Surge Current, and Power Dissipation.

- 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} (μA) | Maximum I_R @ V_{RWM} $T_J=175$ (μA) | Working Peak Reverse Voltage V_{RWM} (V) | Maximum Reverse Surge Current I_{PP} (A) ⁽¹⁾ | 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)

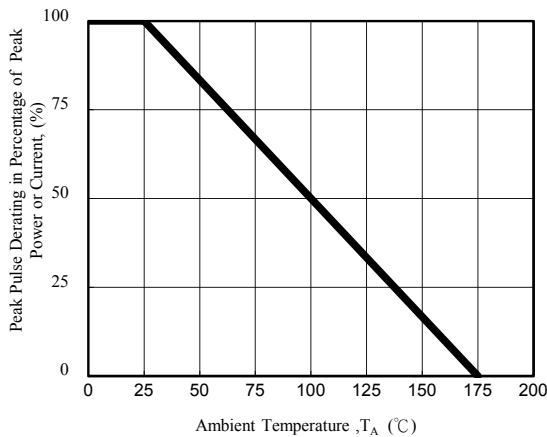


Fig. 1 - Pulse Derating Curve

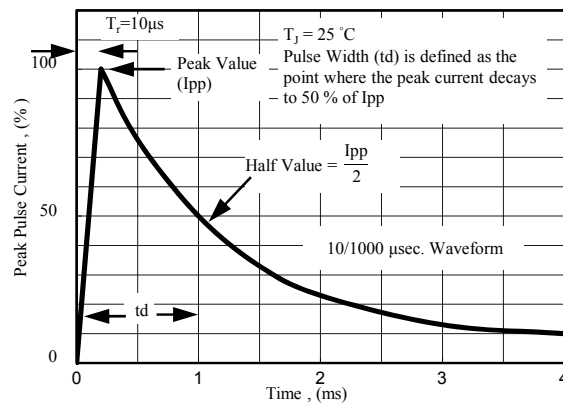


Fig. 2 - Pulse Waveform

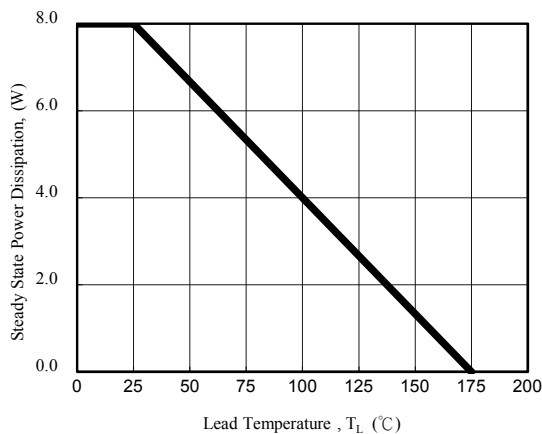


Fig. 3 - Steady State Power Derating Curve

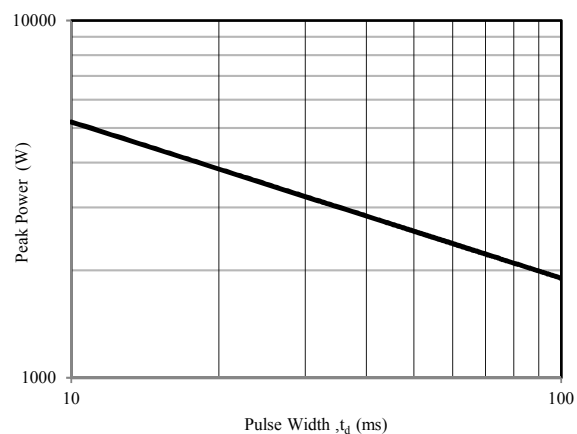


Fig. 4 - Peak Pulse Power Rating Curve



Micro Commercial Components

Ordering Information :

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

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

www.mccsemi.com