



SS12W SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

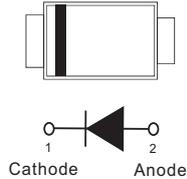
VOLTAGE 20 to 100 Volt **CURRENT** 1 Ampere

FEATURES

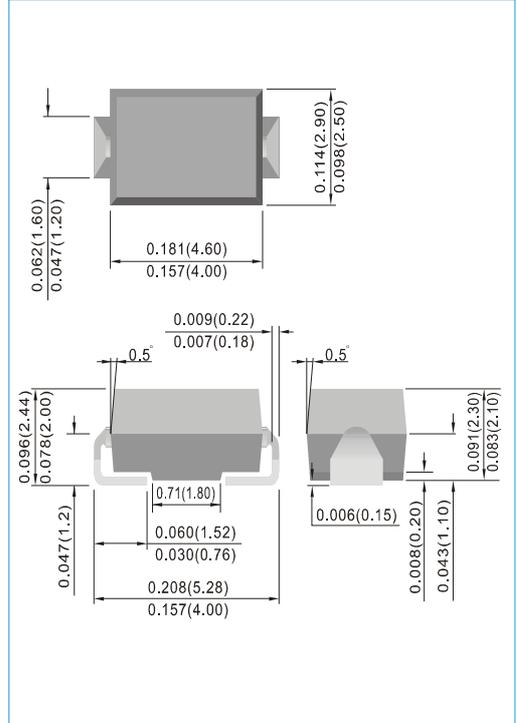
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low power loss, high efficiency
- High surge capacity
- High current capacity, low V_F
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: JEDEC SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0024 ounces, 0.0679 grams



SMA(W) Unit : inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load.

| PARAMETER | SYMBOL | SS12W | SS13W | SS14W | SS15W | SS16W | SS18W | SS19W | S100W | UNITS | |
|--|------------------------------------|-------------|-------|-------------|-------|-----------|-------|-------|-------|-------|-----------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Maximum Average Forward Current at $T_L=75^\circ\text{C}$ | $I_{F(AV)}$ | 1 | | | | | | | | A | |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 30 | | | | | | | | A | |
| Maximum Forward Voltage at 1A (Note 1) | V_F | 0.5 | | 0.7 | | 0.85 | | | | V | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$ | I_R | | | 0.5 50 | | 0.5 20 | | | | mA | |
| Typical Thermal Resistance (Note 2) | $R_{\theta JL}$ $R_{\theta JA}$ | | | | | 28 88 | | | | | °C / W |
| Operating Junction Temperature Range | T_J | -55 to +125 | | -55 to +150 | | | | | | °C | |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | | °C |

NOTES :

1. Pulse Test with PW =300µsec, 1% Duty Cycle.
2. Mounted on P.C. Board with 5mm² (0.013mm thick) copper pad areas.



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RATING AND CHARACTERISTIC CURVES

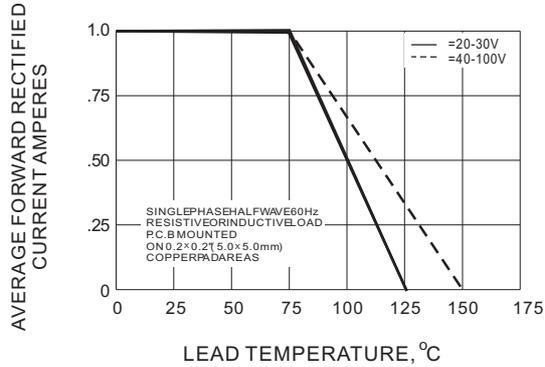


Fig.1 FORWARD CURRENT DERATING CURVE

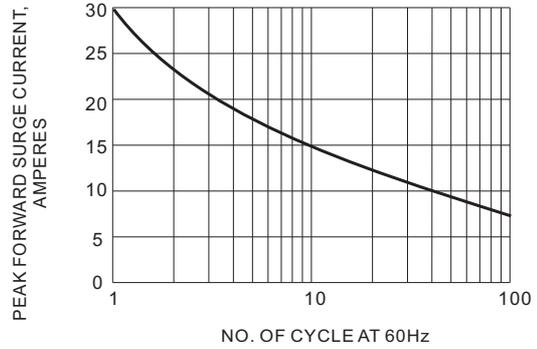


Fig.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

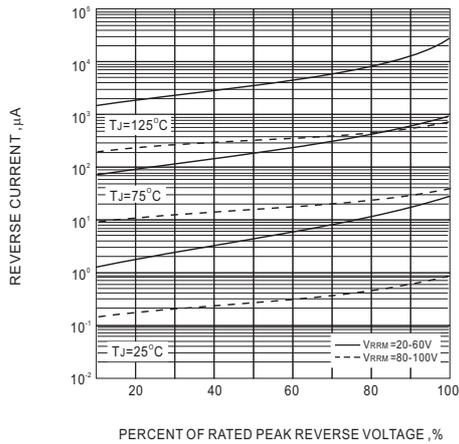


Fig.3 TYPICAL REVERSE CHARACTERISTIC

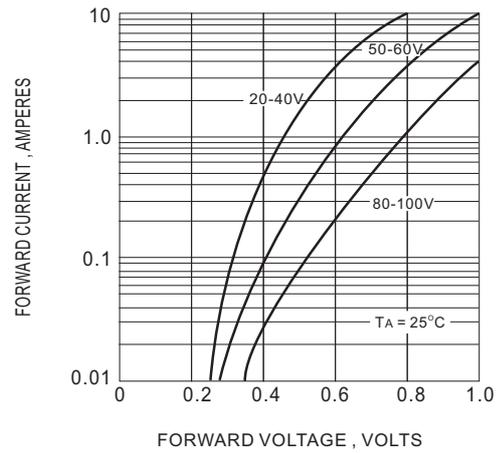


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

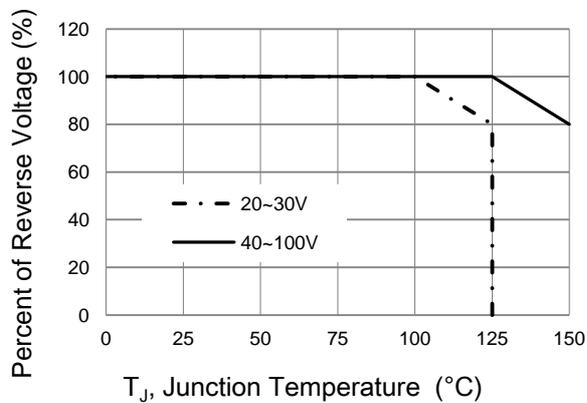


Fig.5 Operating Temperature Derating Curve

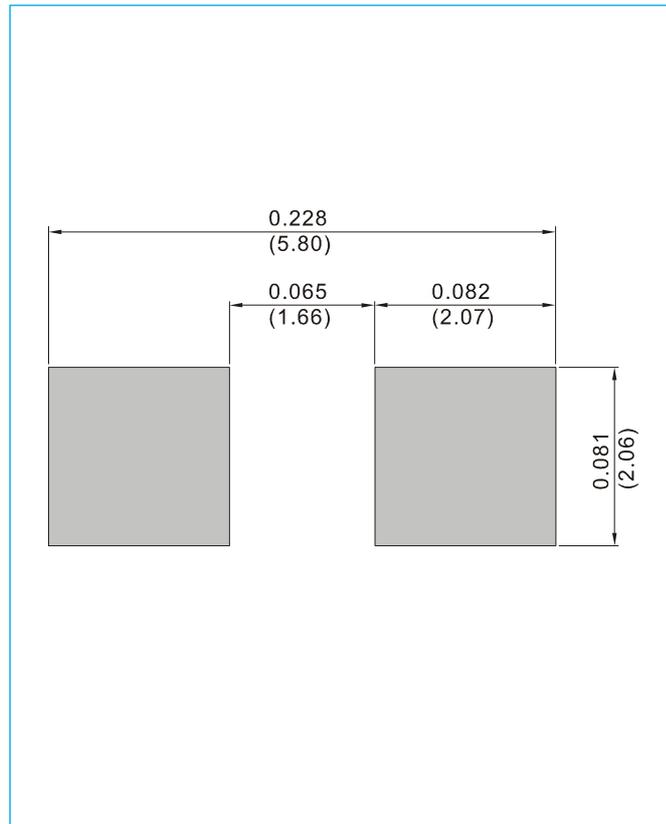


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MOUNTING PAD LAYOUT

SMA(W)

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 7.5K per 13" plastic Reel
 - T/R - 1.8K per 7" plastic Reel



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Part No_packing code_Version

SS12W_R1_00001

SS12W_R2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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