

Pb Free Plating Product



SS52 thru SS515

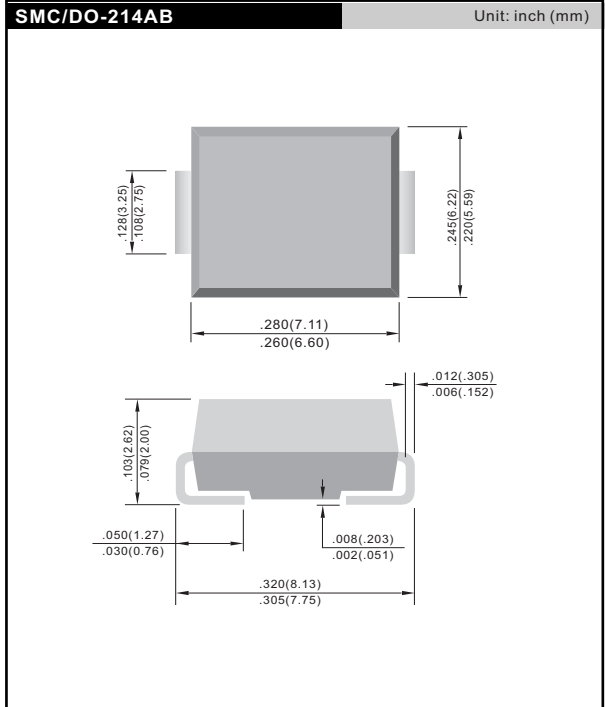
5.0 AMP. SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Features

- ✧ For surface mounted application
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Pure tin plated, lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.1 gram



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | Symbol | SS 52 | SS 53 | SS 54 | SS 55 | SS 56 | SS 59 | SS 510 | SS 515 | Units |
|---------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|-------|-------|-------------|-------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | 70 | 105 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| Maximum Average Forward Rectified Current at T_L (See Fig. 1) | $I_{(AV)}$ | 5.0 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 120 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 5.0A | V_F | 0.55 | | 0.75 | | 0.85 | | 0.95 | | V |
| Maximum DC Reverse Current (Note 1) @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$ | I_R | 0.5 | | | | 0.3 | | | | mA |
| | | 20 | | 10 | | 5.0 | | | | mA |
| Typical Thermal Resistance (Note 2) | $R_{\theta JL}$ | 17 | | | | | | | | °C/W |
| | $R_{\theta JA}$ | 55 | | | | | | | | |
| Operating 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=300 usec, 1% Duty Cycle
2. Measured on P.C.Board with 0.6" x 0.6" (16mm x 16mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SS52 THRU SS515)

