



DATA SHEET

SD520S~SD5100S

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 100 Volts **CURRENT** 5 Amperes

TO-252 / DPAK

Unit : inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

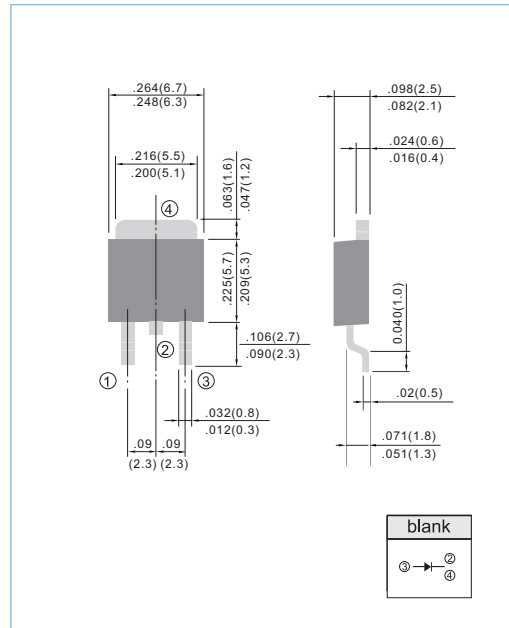
MECHANICAL DATA

Case: TO-252 molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: As marking

Weight: 0.015 ounces, 0.4grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%

| PARAMETER | SYMBOL | SD520S | SD530S | SD540S | SD550S | SD560S | SD580S | SD5100S | UNITS |
|---|-----------------|-------------|--------|--------|--------|--------|--------|---------|----------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_c = 75^\circ C$ | I_{AV} | 5.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 100 | | | | | | | A |
| Maximum Forward Voltage at 5.0A | V_F | 0.55 | | 0.75 | | 0.85 | | V | |
| Maximum DC Reverse Current $T_c = 25^\circ C$ at Rated DC Blocking Voltage $T_c = 100^\circ C$ | I_R | 0.2 20 | | | | | | | mA |
| Maximum Thermal Resistance | $R_{\theta JC}$ | 5.0 | | | | | | | $^\circ C / W$ |
| Operating Junction Temperature Range | T_J | -50 to +125 | | | | | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | | $^\circ C$ |



RATING AND CHARACTERISTIC CURVES

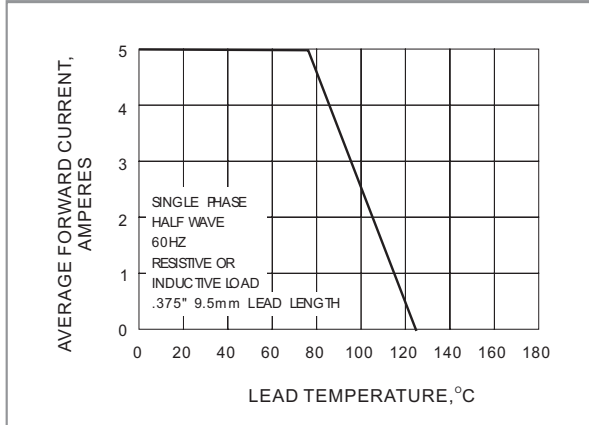


Fig. 1- FORWARD CURRENT DERATING CURVE

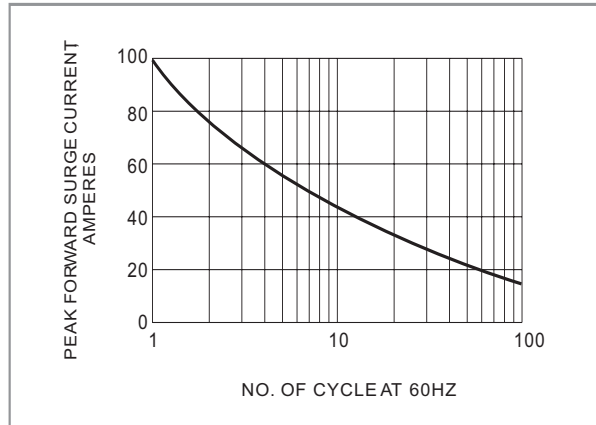


Fig. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

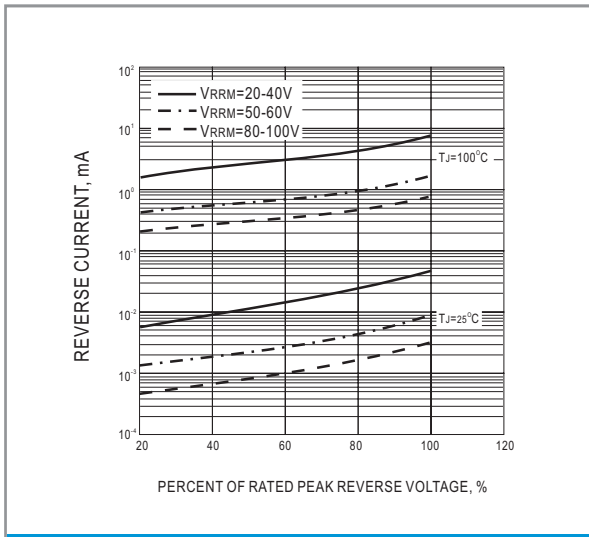


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

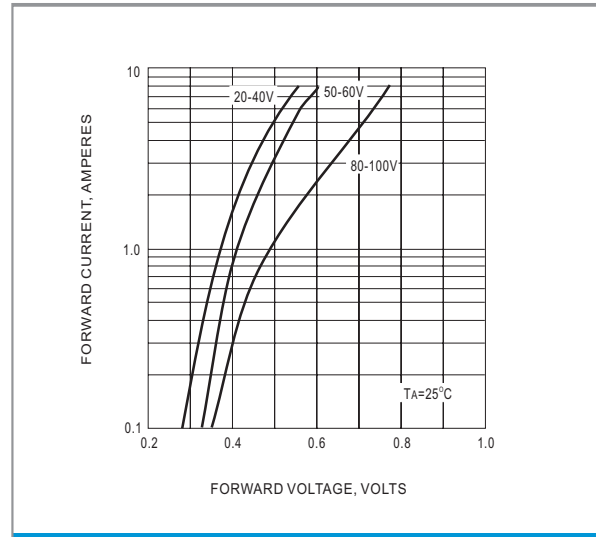


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC