



DATA SHEET

SD820S~SD8150S

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

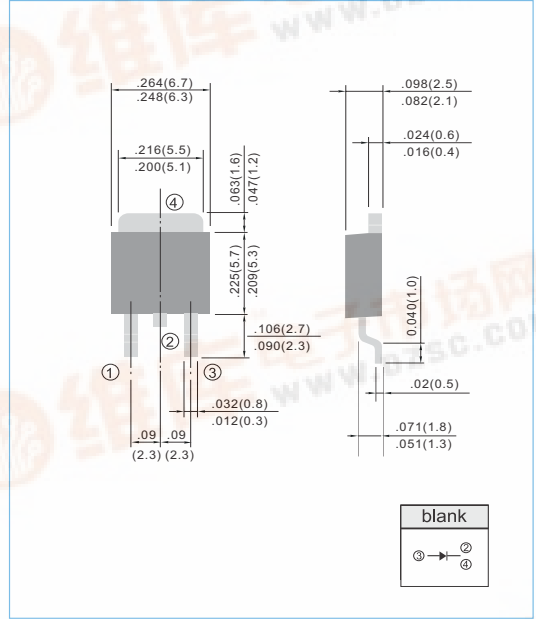
| | | | | | |
|----------------|------------------------|----------------|------------------|----------------------|-----------------|
| VOLTAGE | 20 to 150 Volts | CURRENT | 8 Amperes | TO-252 / DPAK | Unit: inch (mm) |
|----------------|------------------------|----------------|------------------|----------------------|-----------------|

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 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
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: D PAK/TO-252 molded plastic
 Terminals: Solder plated, solderable per MIL-STD-202G, Method 208
 Polarity: As marking
 Standard packaging: 16mm tape (EIA-481)
 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 | SD820S | SD830S | SD840S | SD850S | SD860S | SD880S | SD8100S | SD8150S | UNITS |
|--|-----------------------------------|-------------|--------|--------|--------|--------|--------|---------|---------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | V |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | V |
| Maximum Average Forward Current .375"(9.5mm) lead length at T _c =85°C | I _{AV} | 8 | | | | | | | | A |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I _{FSM} | 85 | | | | | | | | A |
| Maximum Forward Voltage at 8.0A | V _F | 0.55 | | 0.75 | | 0.85 | | 0.92 | | V |
| Maximum DC Reverse Current T _J =25°C at Rated DC Blocking Voltage T _J =100°C | I _R | 0.5 20 | | | | | | | | mA |
| Typical Thermal Resistance | R _{θJC} | 5 | | | | | | | | °C / W |
| Operating Junction Temperature Rang | T _J | -50 to +125 | | | | | | | | °C |
| Storage Temperature Rang | T _J , T _{STG} | -50 to +150 | | | | | | | | °C |





RATING AND CHARACTERISTIC CURVES

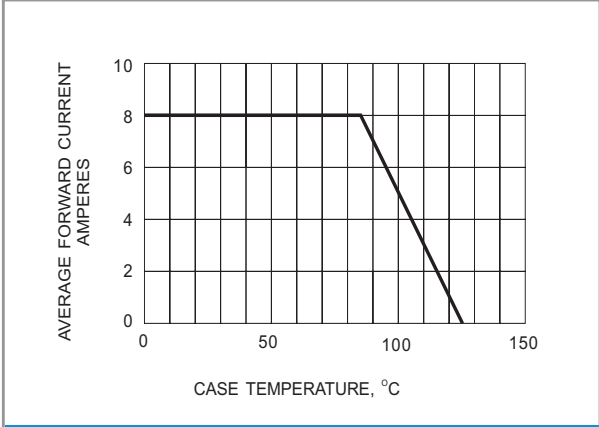


Fig.1- FORWARD CURRENT DERATING CURVE

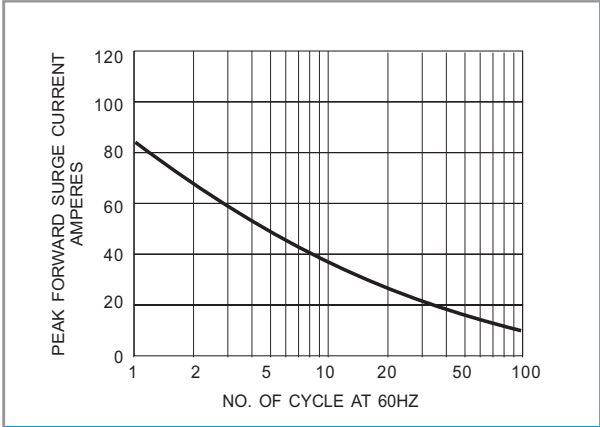


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

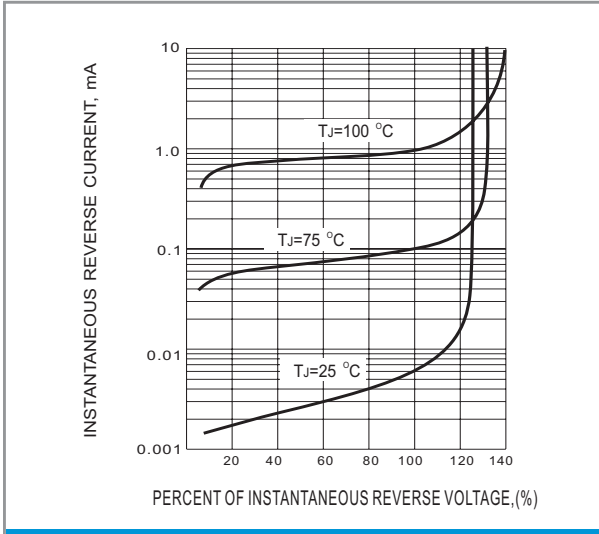


Fig.3- TYPICAL REVERSE CHARACTERISTICS

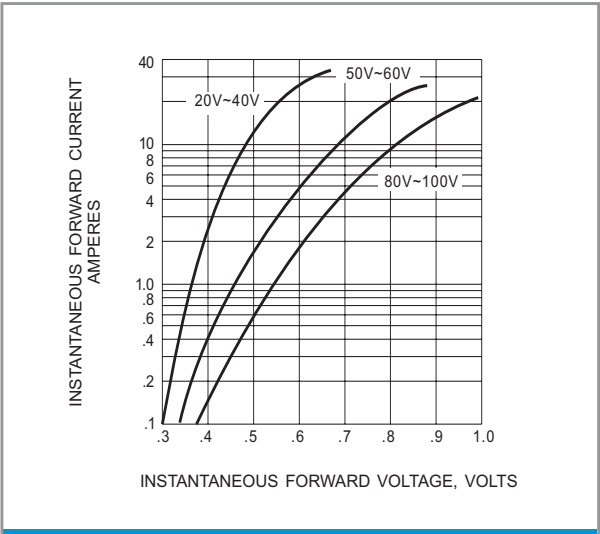


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS