



DATA SHEET

SD820CS~SD8100CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 100 Volts CURRENT - 8 Ampere

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
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

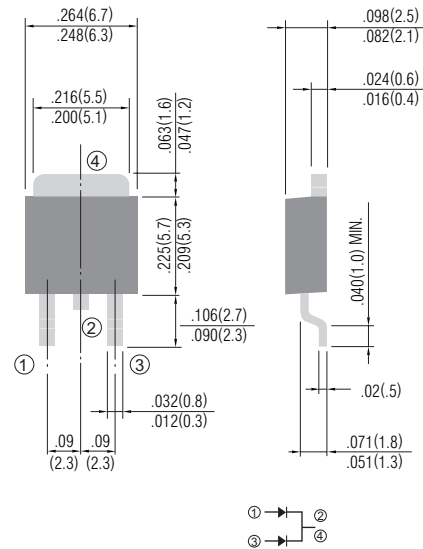
Case: D PAK/TO-252 molded plastic

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

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%

| | SD820CS | SD830CS | SD840CS | SD860CS | SD880CS | SD8100CS | UNITS |
|--|-------------|---------|---------|---------|---------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 60 | 80 | 100 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 42 | 56 | 70 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 60 | 80 | 100 | V |
| Maximum Average Forward Rectified Current at Tc=85°C | 8 | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 85 | | | | | | A |
| Maximum Instantaneous Forward Voltage at 4.0A (Note 1) | 0.55 | | 0.75 | | 0.85 | | V |
| Maximum DC Reverse Current at Tc=25°C | 0.2 | | | | | | mA |
| DC Blocking Voltage per element Tc=100°C | 20 | | | | | | |
| Maximum Thermal Resistance (Note 2) | 80 | | | | | | °C/W |
| Operating and Storage Temperature Range | -55 to +125 | | | | | | °C |
| Storage Temperature Range | -65 to +150 | | | | | | °C |

NOTES:

1. Thermal Resistance Junction to Ambient .



RATING AND CHARACTERISTIC CURVES

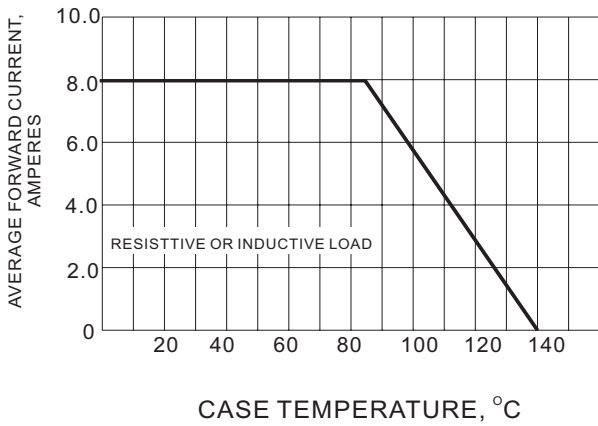


Fig.1- FORWARD CURRENT DERATING CURVE

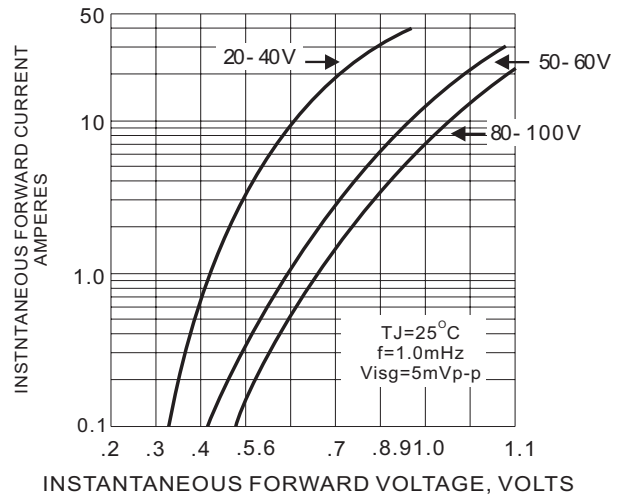


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

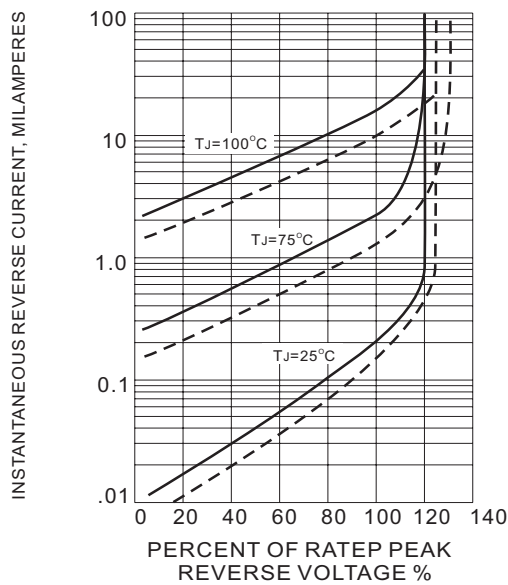


Fig.3- TYPICAL REVERSE CHARACTERISTICS

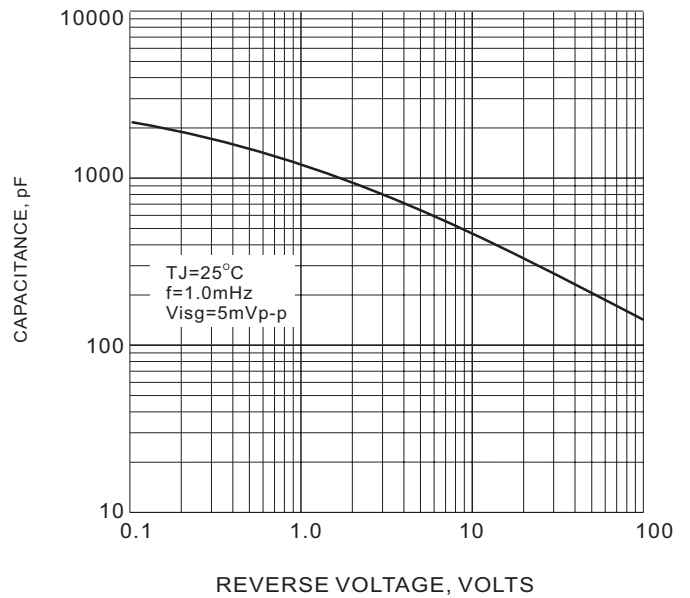


Fig.4- TYPICAL JUNCTION CAPACITANCE

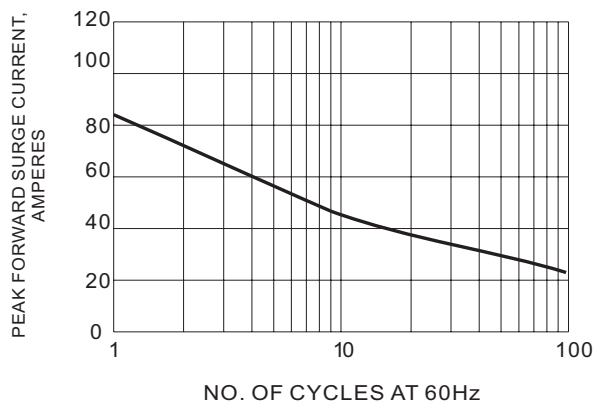


Fig.5- MAXIMUM NON-REPETITIVE SURGE CURRENT