

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER DIODE

VOLTAGE RANGE - 20 to 100 Volts

CURRENT - 8.0 Amperes

FEATURES

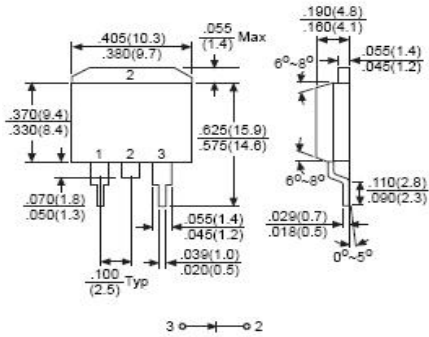
- * Metal to silicon rectifier majority carrier conduction
- * Low power loss, High efficiency
- * High current capability
- * Low forward voltage drop
- * High surge capacity
- * For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 1.7 grams Approx.



TO-263(D²PAK)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| | SYMBOL | SD820D | SD830D | SD840D | SD850D | SD860D | SD880D | SD8100D | UNITS |
|--|----------|-------------|--------|--------|--------|--------------|--------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS Voltage | VRMS | 14 | 21 | 28 | 35 | 42 | 56 | 70 | Volts |
| Maximum DC Blocking Voltage | VDC | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum Average Forward Rectified Current at TC=100°C | IO | 8.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 150 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 8.0A DC | VF | 0.65 | | 0.75 | | 0.85 | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | IR | @TA = 25°C | 5.0 | | | | | | mAmps |
| | | @TA = 100°C | 50 | | | | | | |
| Typical Thermal Resistance (Note1) | RθJA | | | | | 60 | | | °C/W |
| Typical Junction Capacitance (Note 2) | CJ | | | | | 700 | | | pF |
| Storage Operating Temperature Range | TJ, TSTG | | | | | -55 to + 150 | | | °C |

Note : 1. Mounted on PC Board with 14mm²(0.013mm thick) copper pad areas.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SD820D THRU SD8100D)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

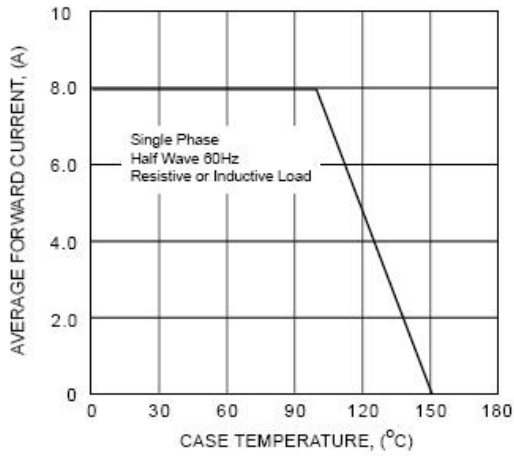


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

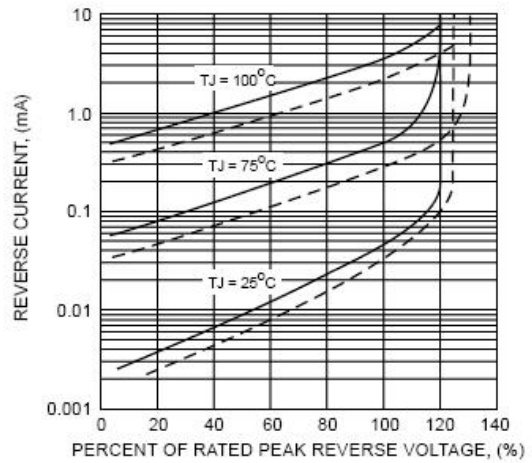


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

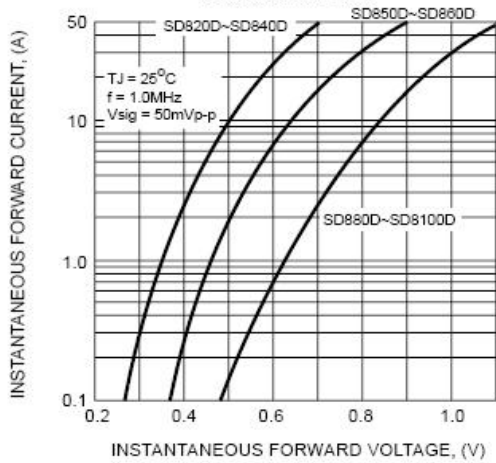


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

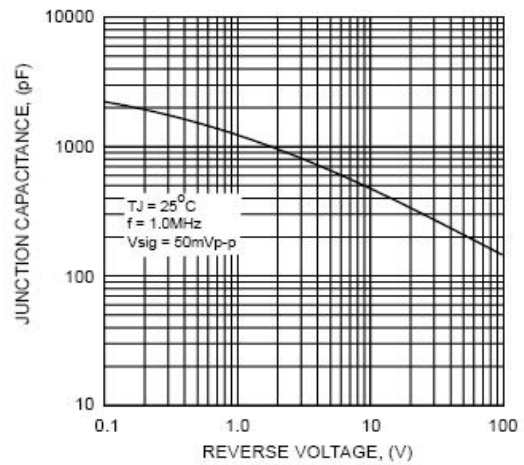


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

