



DC COMPONENTS CO., LTD.  
RECTIFIER SPECIALISTS

SD1620D  
THRU  
SD16100D

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER DIODE**  
**VOLTAGE RANGE - 20 to 100 Volts** **CURRENT - 16 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**

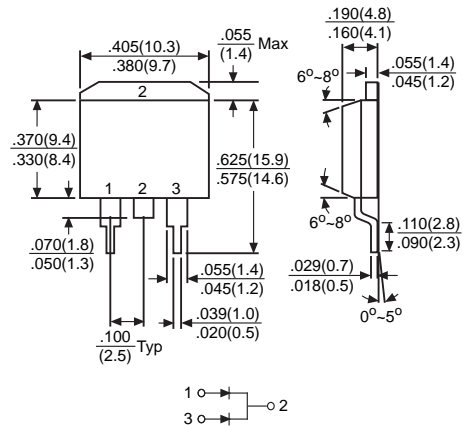
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Mounting position: Any
- \* Weight: 1.7 grams Approx.

**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%.



TO-263(D<sup>2</sup>PAK)



Dimensions in inches and (millimeters)

	SYMBOL	SD1620D	SD1630D	SD1640D	SD1650D	SD1660D	SD1680D	SD16100D	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> =90°C	I <sub>O</sub>	16							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							Amps
Maximum Instantaneous Forward Voltage at 8.0A DC	V <sub>F</sub>	0.65			0.75		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C	5.0							mAmps
	@ T <sub>A</sub> = 100°C	100							
Typical Thermal Resistance (Note1)	R <sub>θJA</sub>	80							°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	700							pF
Storage Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

Note : 1. Mounted on PC Board with 14mm<sup>2</sup>(0.013mm thick) copper pad areas.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

# RATING AND CHARACTERISTIC CURVES (SD1620D THRU SD16100D)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

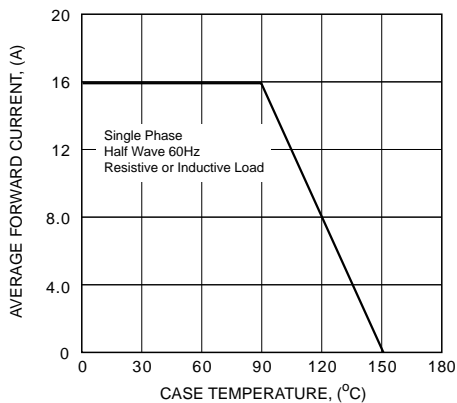


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

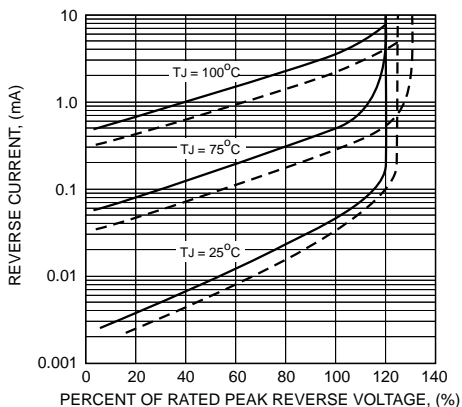


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

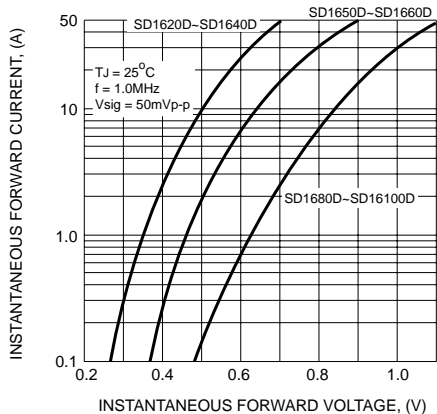


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

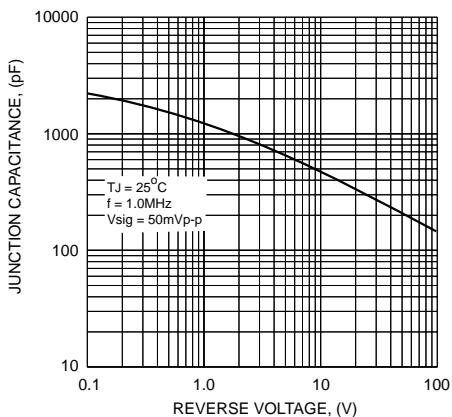


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

