



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

SD820D
THRU
SD8100D

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

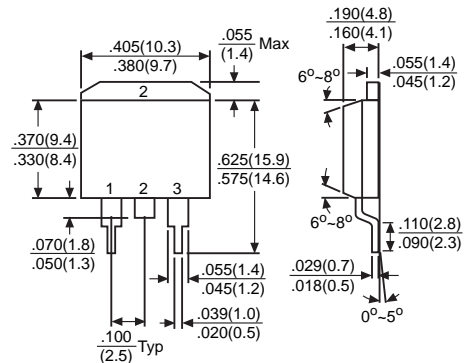
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 1.7 grams Approx.

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(D²PAK)



3 0 — 0 2

Dimensions in inches and (millimeters)

	SYMBOL	SD820D	SD830D	SD840D	SD850D	SD860D	SD880D	SD8100D	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at T _C =100°C	I _O	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							Amps
Maximum Instantaneous Forward Voltage at 8.0A DC	V _F	0.65			0.75		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@ T _A = 25°C			5.0		mAmps		
		@ T _A = 100°C			50				
Typical Thermal Resistance (Note1)	R _{θJA}				60		°C/W		
Typical Junction Capacitance (Note 2)	C _J				700		pF		
Storage Operating Temperature Range	T _J , T _{STG}				-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

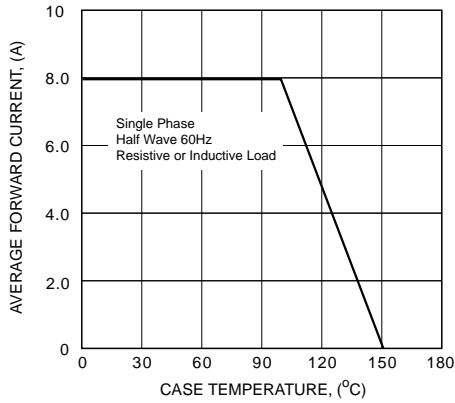


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

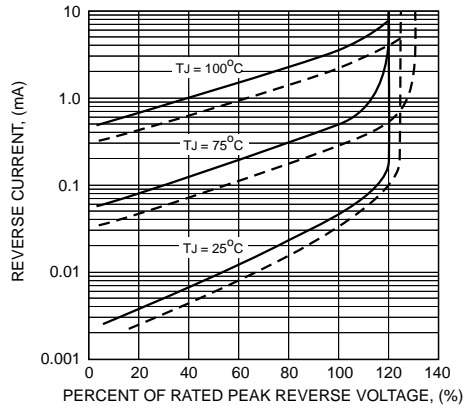


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

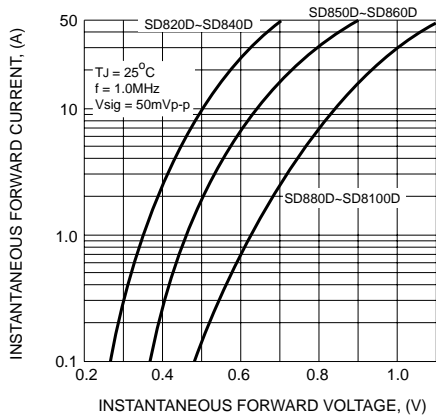


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

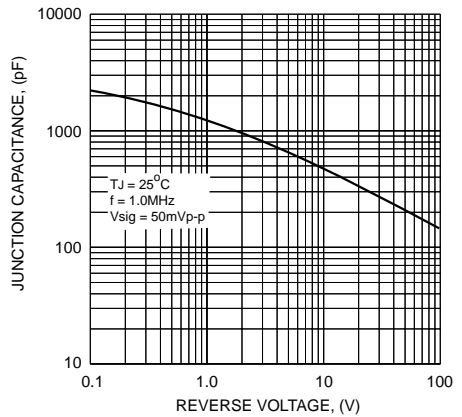


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

