



DATA SHEET

SD1020S~SD10150S

SCHOTTKY BARRIER RECTIFIERS

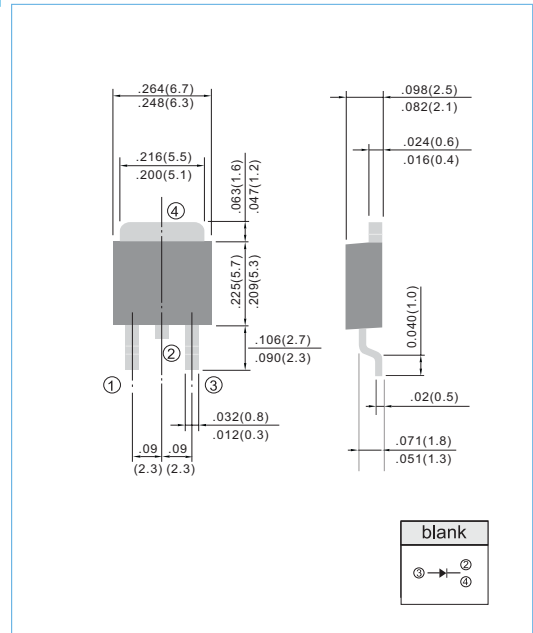
VOLTAGE 20 to 150 Volts **CURRENT** 10.0 Amperes **TO-252 / DPAK** Unit : inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- 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: 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	SD1020S	SD1030S	SD1040S	SD1050S	SD1060S	SD1080S	SD10100S	SD10150S	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 Rectified Current .375" (9.5mm) lead length at $T_c = 100^\circ C$	I_{AV}	10.0								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100								A
Maximum Instantaneous Forward Voltage at 10.0A	V_F	0.55		0.75		0.85		0.92		V
Maximum DC Reverse Current $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 100^\circ C$	I_R	0.2 20								mA
Maximum Thermal Resistance	$R_{\theta JC}$ $R_{\theta JA}$	3.0 80								$^\circ C / W$
Operating Junction Temperature Range	T_J	-50 to +125								$^\circ C$
Storage Temperature Range	T_{STG}	-50 to +150								$^\circ C$



RATING AND CHARACTERISTIC CURVES

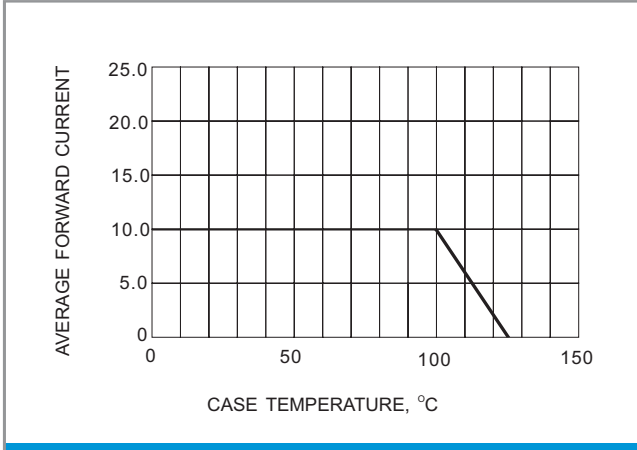


Fig.1- FORWARD CURRENT DERATING CURVE

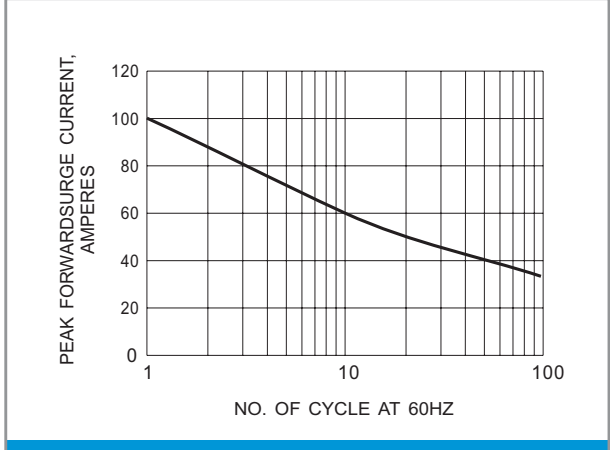


Fig.2-MAXIMUMNON-REPETITIVEPEAK FORWARD SURGE CURRENT

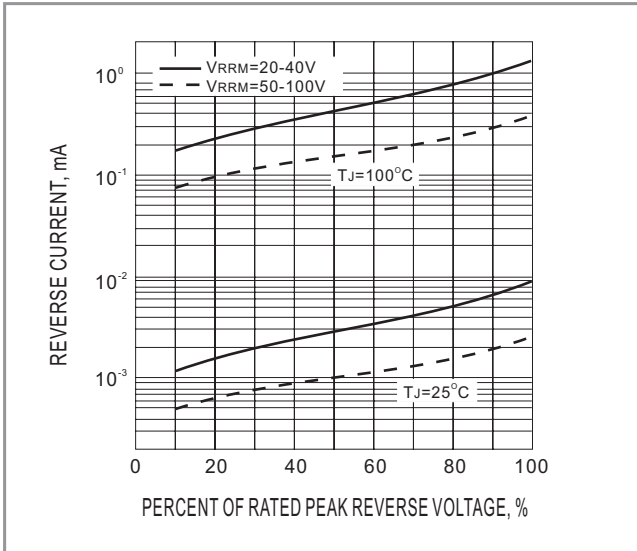


Fig.3- TYPICAL REVERSE CHARACTERISTICS

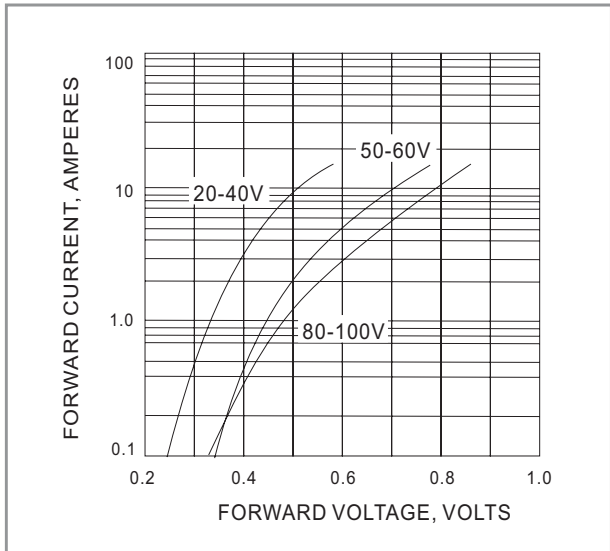


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC