



# DATA SHEET

## SD320S~SD3100S

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 100 Volts **CURRENT** 3.0 Ampere

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

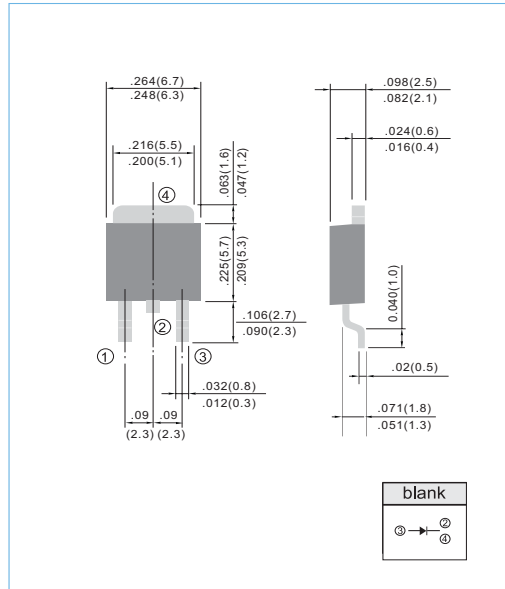
#### MECHANICAL DATA

Case: TO-252 molded plastic

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

Polarity: As marking

Weight: 0.015 ounces, 0.4grams.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

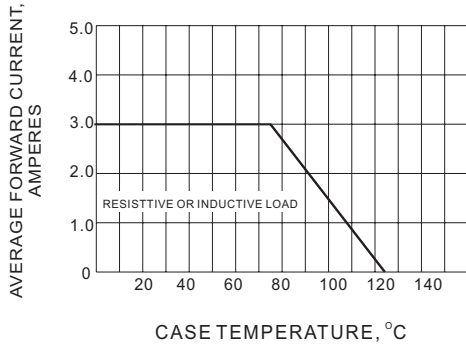
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

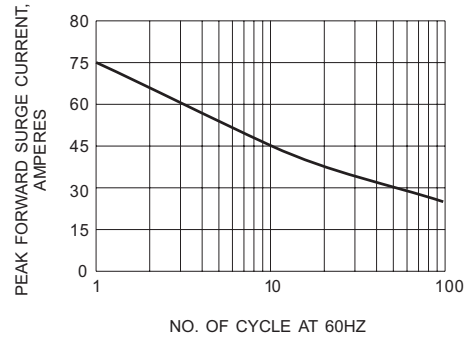
PARAMETER	SYMBOL	SD320S	SD330S	SD340S	SD350S	SD360S	SD380S	SD3100S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at T <sub>C</sub> =75°C	I <sub>AV</sub>	3.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	75							A
Maximum Forward Voltage at 3.0A	V <sub>F</sub>	0.50		0.64		0.85		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>C</sub> =25°C Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>C</sub> =100°C	I <sub>R</sub>					0.2 20		mA	
Maximum Thermal Resistance	R <sub>θJC</sub>					5.0		°C / W	
Operating Junction Temperature Rang	T <sub>J</sub>					-50 to +125		°C	
Storage Temperature Rang	T <sub>STG</sub>					-65 to +150		°C	



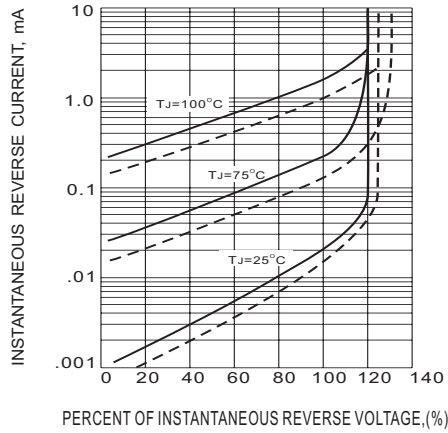
**RATING AND CHARACTERISTIC CURVES**



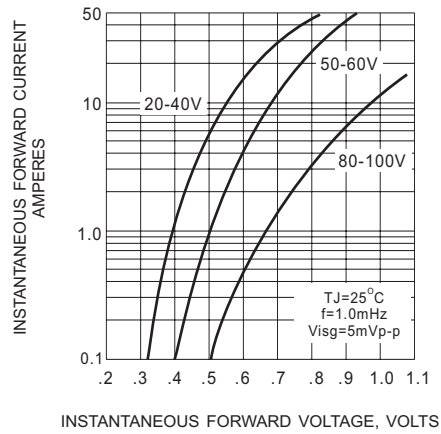
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**