



# 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

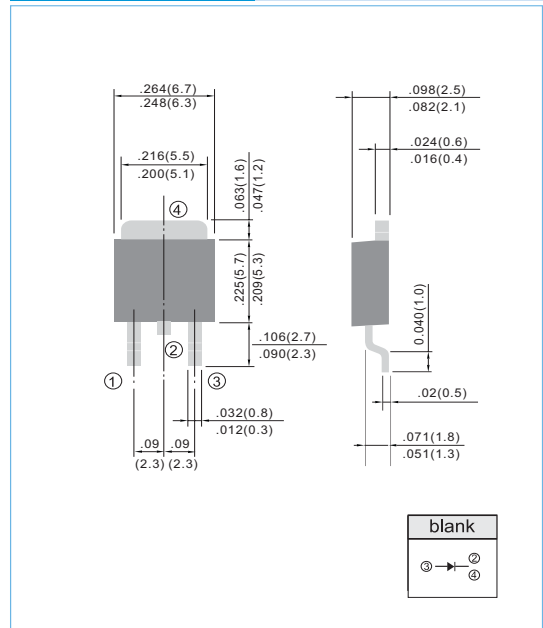
#### MECHANICAL DATA

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

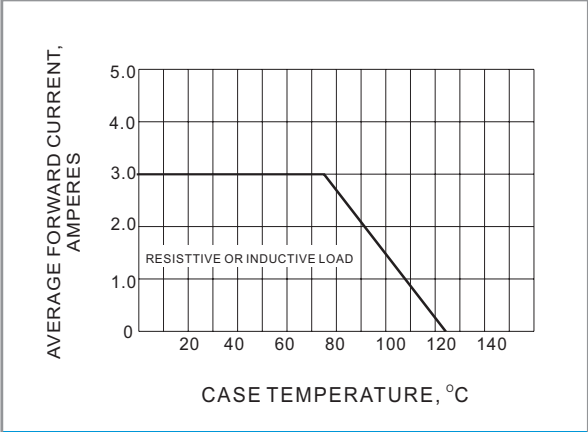
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

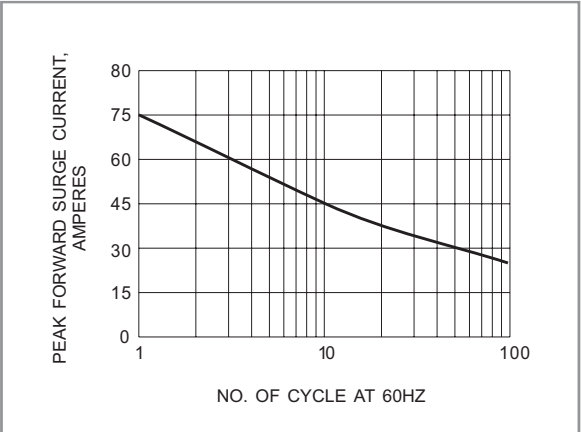
PARAMETER	SYMBOL	SD320S	SD330S	SD340S	SD350S	SD360S	SD380S	SD3100S	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	V	
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_C=75^\circ C$	$I_{AV}$	3.0							A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	75							A	
Maximum Forward Voltage at 3.0A	$V_F$	0.50		0.64		0.85		V		
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_C=25^\circ C$ Maximum DC Reverse Current at Rated DC Blocking Voltage $T_C=100^\circ C$	$I_R$					0.2 20			mA	
Maximum Thermal Resistance	$R_{\theta JC}$	5.0								$^\circ C / W$
Operating Junction Temperature Rang	$T_J$	-50 to +125							$^\circ C$	
Storage Temperature Rang	$T_{STG}$	-65 to +150							$^\circ C$	



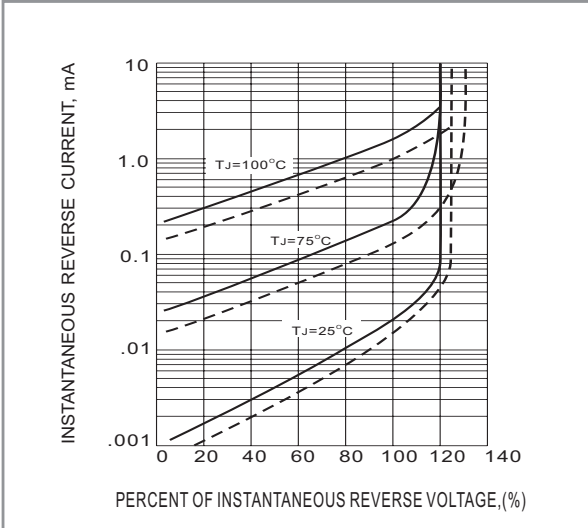
**RATING AND CHARACTERISTIC CURVES**



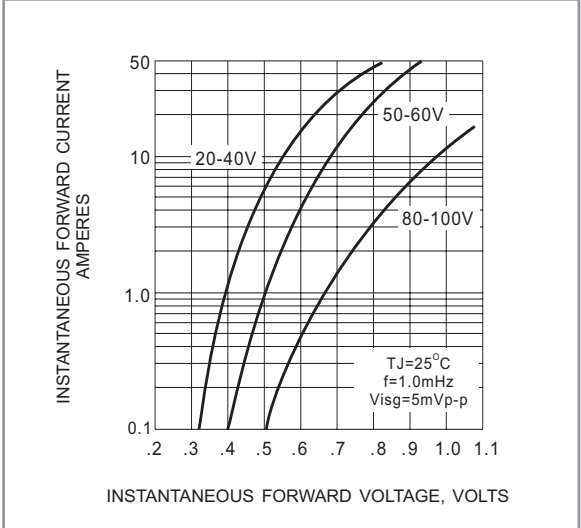
**Fig.1- FORWARD CURRENT DERATING CURVE**



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



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



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