



# DATA SHEET

## SD820S~SD8150S

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 150 Volts **CURRENT** 8 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

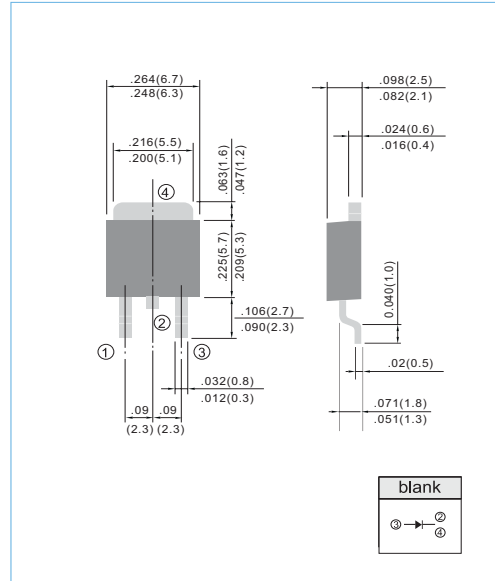
Case: D PAK/TO-252 molded plastic

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

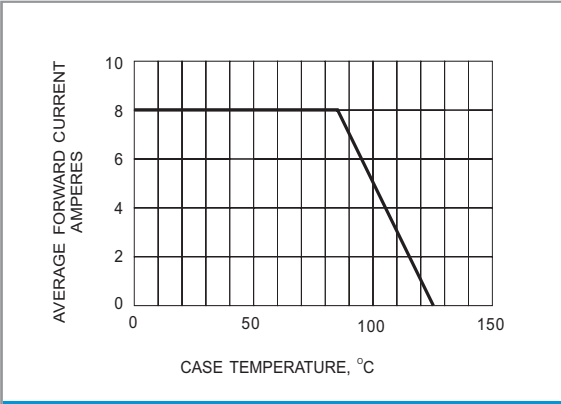
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

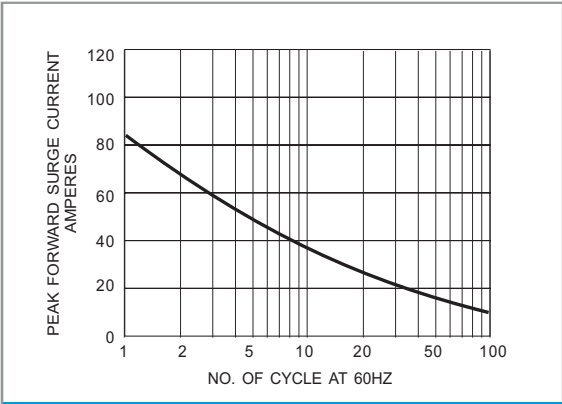
PARAMETER	SYMBOL	SD820S	SD830S	SD840S	SD850S	SD860S	SD880S	SD8100S	SD8150S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	V
Maximum Average Forward Current .375"(9.5mm) lead length at T <sub>c</sub> =85°C	I <sub>AV</sub>	8								A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	85								A
Maximum Forward Voltage at 8.0A	V <sub>F</sub>	0.55		0.75		0.85		0.92		V
Maximum DC Reverse Current T <sub>J</sub> =25°C at Rated DC Blocking Voltage T <sub>J</sub> =100°C	I <sub>R</sub>					0.5				mA
Typical Thermal Resistance	R <sub>θJC</sub>	5								°C / W
Operating Junction Temperature Rang	T <sub>J</sub>	-50 to +125								°C
Storage Temperature Rang	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150								°C



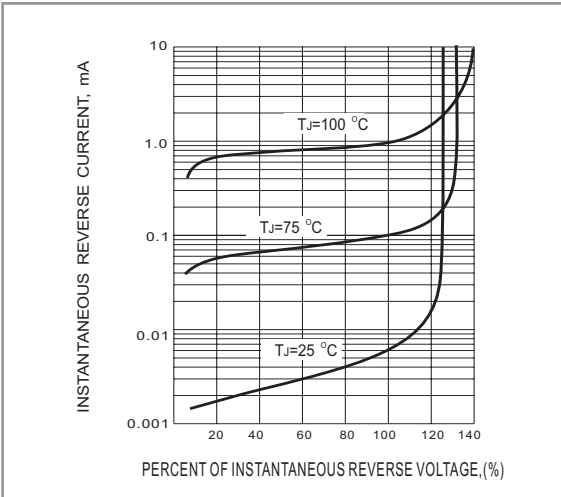
**RATING AND CHARACTERISTIC CURVES**



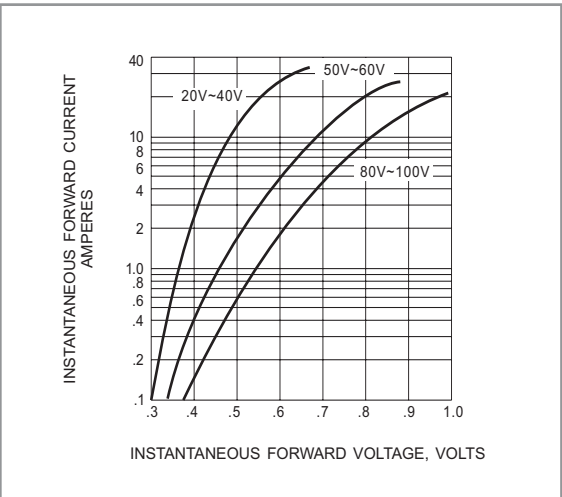
**Fig.1- FORWARD CURRENT DERATING CURVE**



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



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



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