



# DATA SHEET

## SD1020YS~SD10150YS

### 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-0
- 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

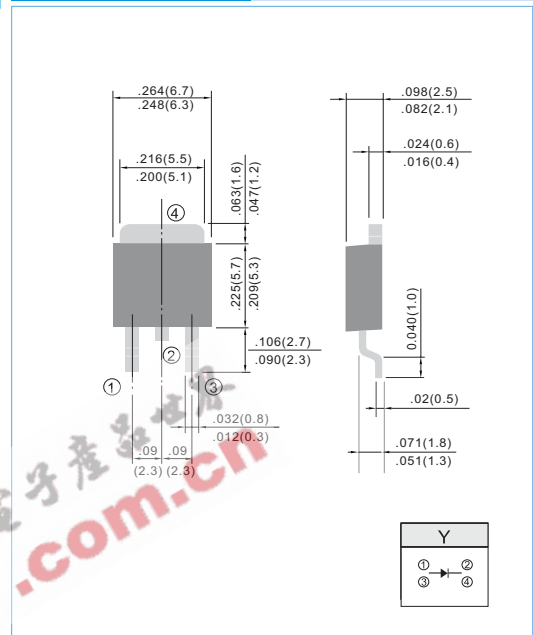
Case: TO-252 molded plastic

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

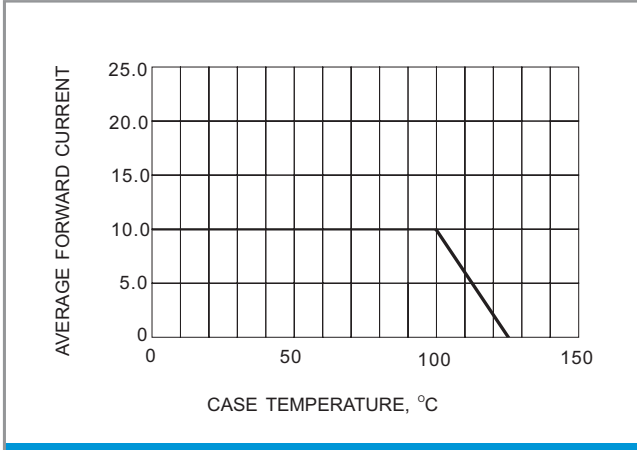
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

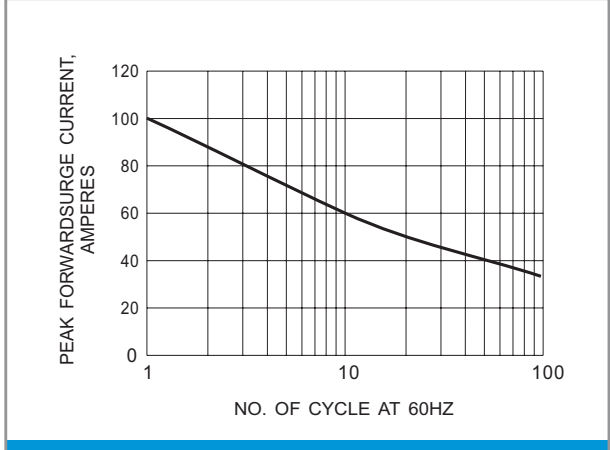
PARAMETER	SYMBOL	SD1020YS	SD1030YS	SD1040YS	SD1050YS	SD1060YS	SD1080YS	SD10100YS	SD10150YS	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	V	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	V	
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T <sub>c</sub> =100°C	I <sub>AV</sub>	10.0								A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	100								A	
Maximum Instantaneous Forward Voltage at 10A per leg	V <sub>F</sub>	0.55			0.75		0.85		0.92	V	
Maximum DC Reverse Current T <sub>A</sub> =25°C at Rated DC Blocking Voltage T <sub>A</sub> =100°C	I <sub>R</sub>					0.2 20					mA
Maximum Thermal Resistance	R <sub>θJC</sub> R <sub>θJA</sub>					3.0 80					°C / W
Operating Junction Temperature Range	T <sub>J</sub>					-50 to +125				°C	
Storage Temperature Range	T <sub>STG</sub>					-50 to +150				°C	



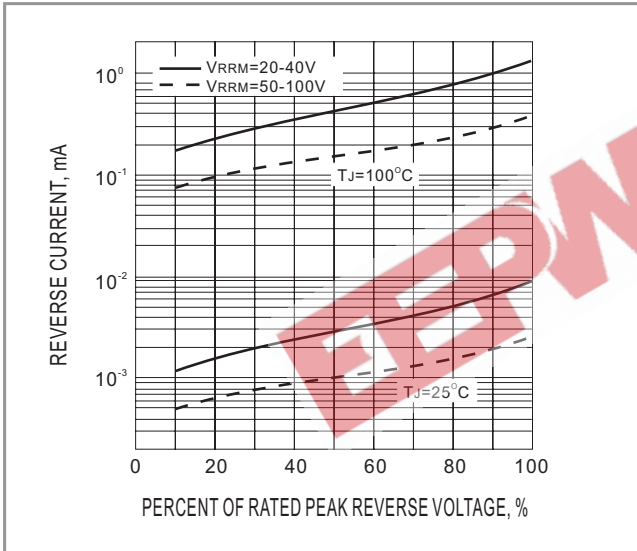
**RATING AND CHARACTERISTIC CURVES**



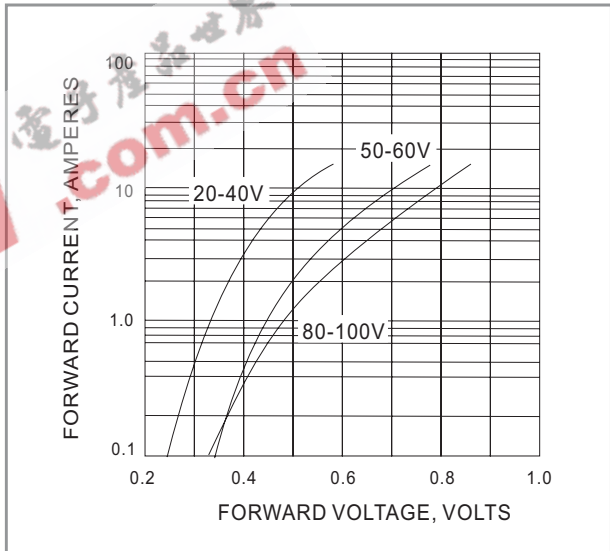
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2-MAXIMUMNON-REPETITIVEPEAK FORWARD SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



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