

## SR1020 THRU SR10100

10.0A SCHOTTKY BARRIER RECTIFIERS



**FEATURES**

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

**MECHANICAL DATA**

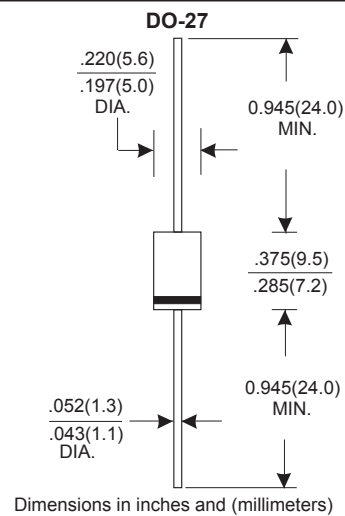
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams
- \* Both normal and Pb free product are available:
- \* Normal: 80~95%Sn, 5~20%Pb
- \* Pb free: 99 Sn above can meet Rohs environment substance directive request

**VOLTAGE RANGE**

20 to 200 Volts

**CURRENT**

10.0 Amperes

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	SR1020	SR1040	SR1045	SR1060	SR1080	SR10100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	45	60	80	100	V
Maximum RMS Voltage	14	28	31.5	42	56	70	V
Maximum DC Blocking Voltage	20	40	45	60	80	100	V
Maximum Average Forward Rectified Current							
See Fig. 1	10.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	250						A
Maximum Instantaneous Forward Voltage at 10.0A	0.50		0.65		0.76		V
Maximum DC Reverse Current Ta=25°C	100						uA
at Rated DC Blocking Voltage Ta=100°C	5						mA
Typical Junction Capacitance (Note1)	420						pF
Typical Thermal Resistance RθJA (Note 2)	12						°C/W
Operating Temperature Range Tj	-65 — +150						°C
Storage Temperature Range Tstg	-65 — +150						°C

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

### RATING AND CHARACTERISTIC CURVES (SR1020 THRU SR10100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

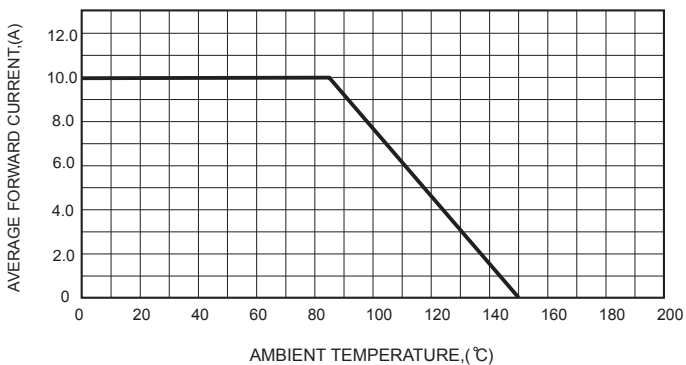


FIG.2-TYPICAL FORWARD CHARACTERISTICS

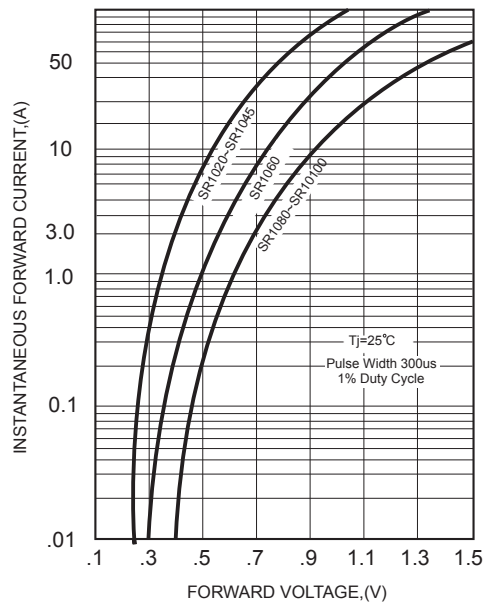


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

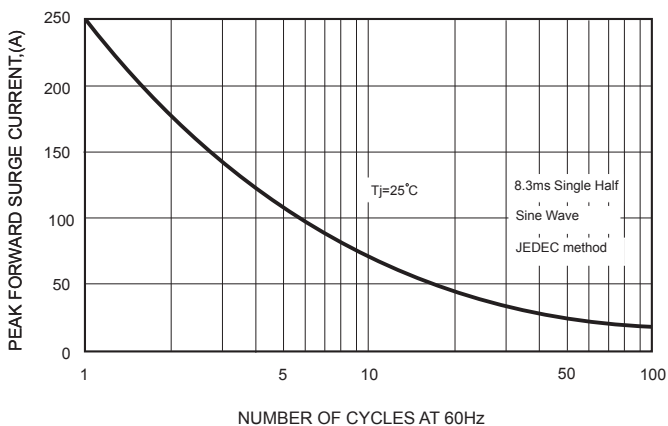


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

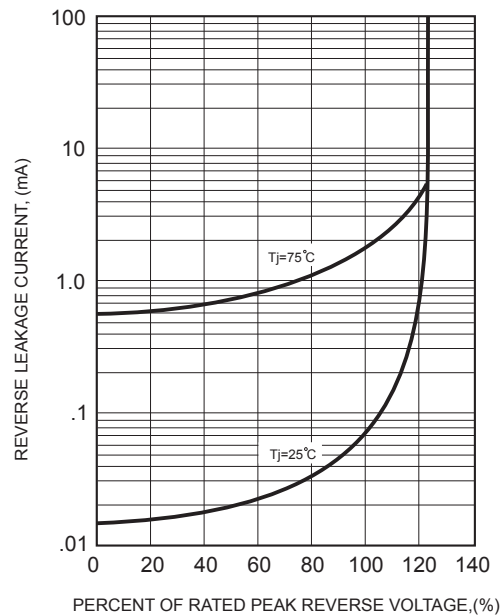


FIG.4-TYPICAL JUNCTION CAPACITANCE

