



### FEATURES

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

### MECHANICAL DATA

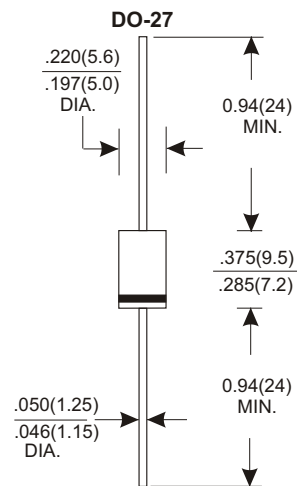
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 2.24 grams

### 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	SR1045	SR1060	SR1080	SR10100	SR10150	SR10200	UNITS
Maximum Recurrent Peak Reverse Voltage	20	45	60	80	100	150	200	V
Maximum RMS Voltage	14	32	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	45	60	80	100	150	200	V
Maximum Average Forward Rectified Current	10.0							A
See Fig. 1								
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	170							A
Maximum Instantaneous Forward Voltage at 10.0A	0.55	0.7	0.85		0.92			V
Maximum DC Reverse Current Ta=25°C	0.1		0.02					mA
at Rated DC Blocking Voltage Ta=100°C	5		2					mA
Typical Junction Capacitance (Note1)	450							pF
Typical Thermal Resistance R <sub>JC</sub> (Note 2)	10.0							°C/W
Operating Temperature Range T <sub>J</sub>	-65 — +150				-65 — +175			°C
Storage Temperature Range T <sub>stg</sub>	-65 — +150							°C

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

## RATING AND CHARACTERISTIC CURVES (SR1020 THRU SR10200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

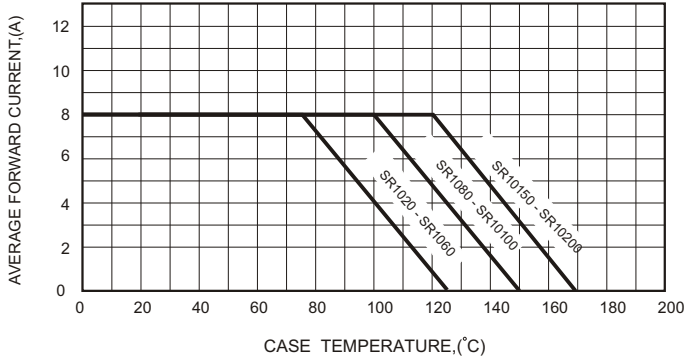


FIG.2-TYPICAL FORWARD CHARACTERISTICS

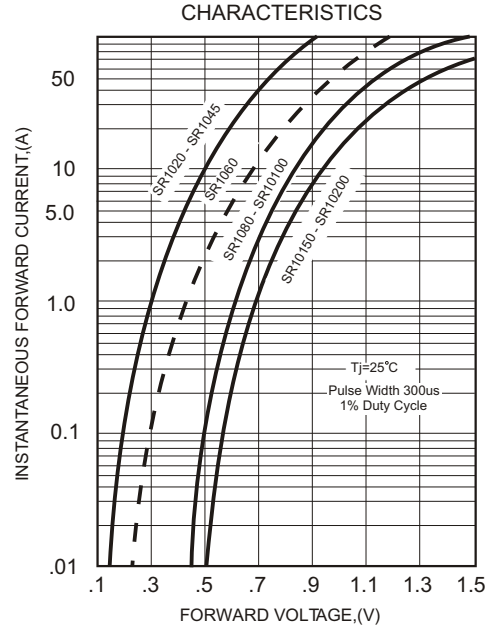


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

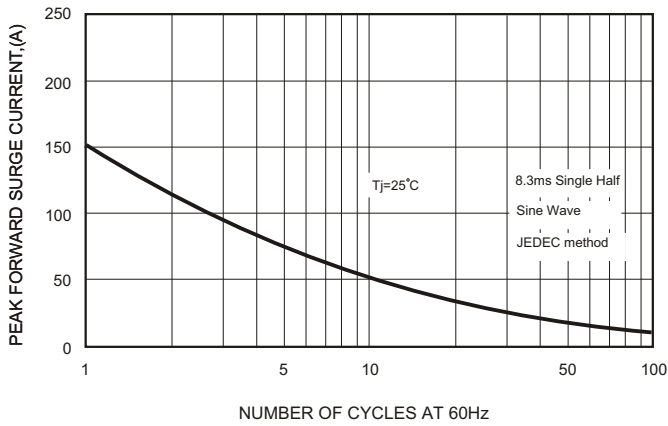


FIG.4-TYPICAL JUNCTION CAPACITANCE

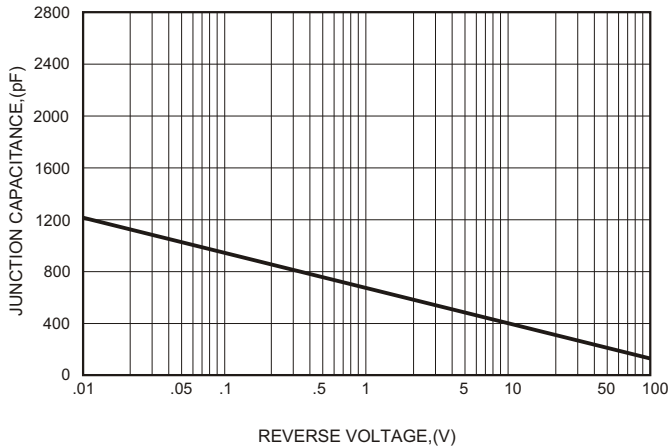


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

