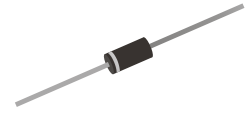


## SR302-G Thru. SR308-G

**Forward current: 3.0A**  
**Reverse voltage: 20 to 80V**  
**RoHS Device**

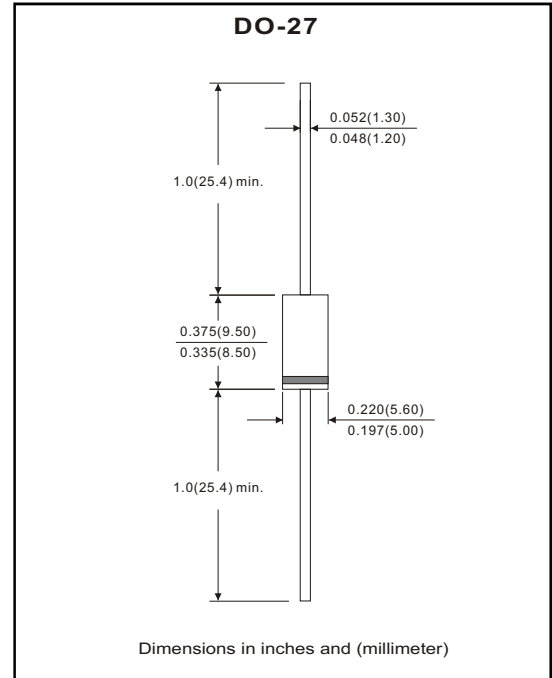


### Features

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length at 5lbs (2.3kg) tension.

### Mechanical Data

- Case: transfer molded plastic.
- Epoxy: UL94V-0 rate flame retardant.
- Polarity: color band denoted cathode end.
- Lead: plastic axial lead, solderable per MIL-STD-202E, method 208C.
- Mounting position: any.
- Weight: 0.042 ounce, 1.19 gram.



### Maximum Ratings and Electrical Characteristics

Ratings at Ta=25°C unless otherwise noted.  
 Single phase, half wave, 60Hz, resistive or inductive loaded.  
 For capacitive load, derate current by 20% .

Parameter	Symbol	SR302 -G	SR303 -G	SR304 -G	SR305 -G	SR306 -G	SR308 -G	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	57	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	V
Maximum average forward rectified current, 0.375" (9.5mm) lead length at <small>TL=75°C (SR302-G ~ SR304-G)                      TL=100°C (SR305-G ~ SR308-G)</small>	I <sub>AV</sub>	3.0						A
Peak forward surge current, 8.3ms single half sine-wave, superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150						A
Maximum instantaneous forward voltage at I <sub>F</sub> =3A	V <sub>F</sub>	0.55			0.75		0.80	V
Maximum DC reverse current at rated DC blocking voltage (Note 1) <small>T<sub>A</sub>=25°C                      T<sub>A</sub>=100°C</small>	I <sub>R</sub>	3.0 30						mA
Typical junction capacitance (Note 2)	C <sub>J</sub>	200						pF
Typical thermal resistance (Note 3)	R <sub>θJA</sub>	40						°C/W
Operating junction temperature range	T <sub>J</sub>	-65 ~ +125			-65 ~ +150			°C
Storage temperature range	T <sub>STG</sub>	-65 ~ +150						°C

Note:

1. Test pulse: 300µs pulse width, 1% duty cycle.
2. Measured at 1MHz and applied reverse voltage of 4.0V.
3. Thermal resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 2.5"x2.5"(63.5x63.5mm) copper pads.

## RATING AND CHARACTERISTIC CURVES (SR302-G Thru. SR308-G)

Fig.1 Typical Forward Current Derating Curve

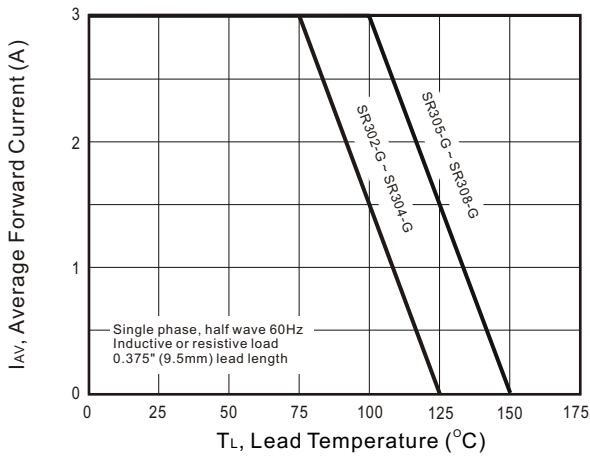


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

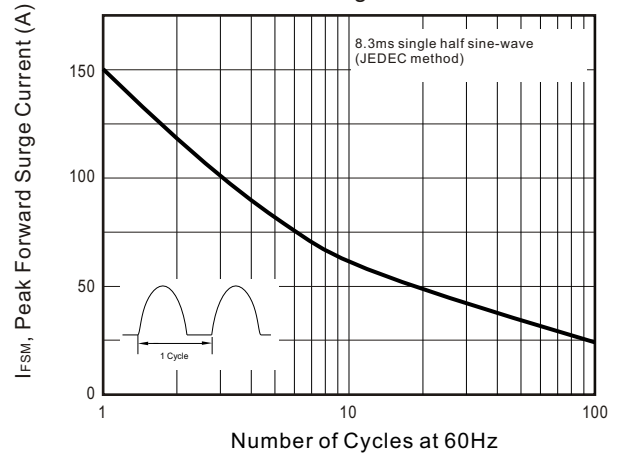


Fig.3 Typical Instantaneous Forward Characteristics

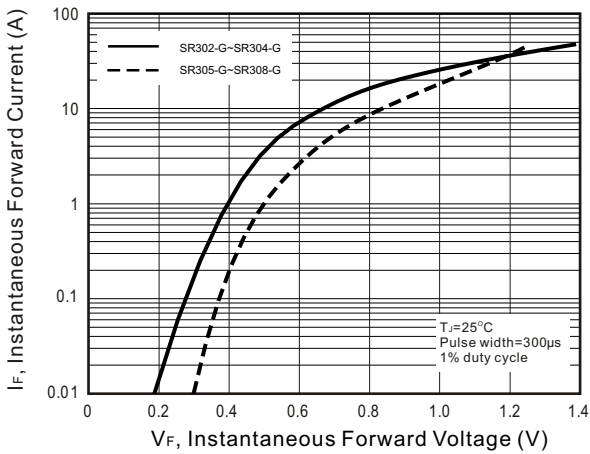


Fig.4 Typical Reverse Characteristics

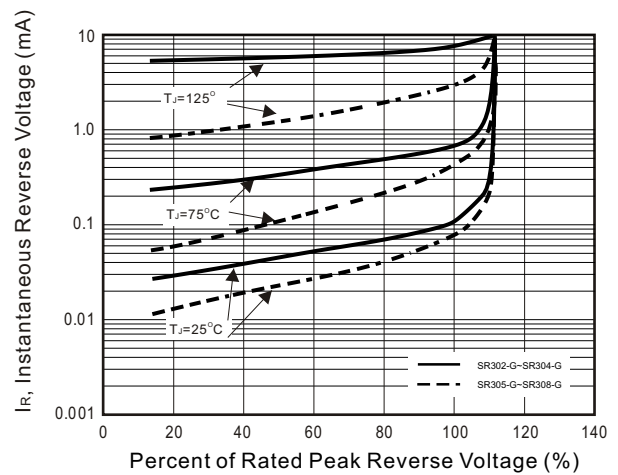


Fig.5 Typical Junction Capacitance

