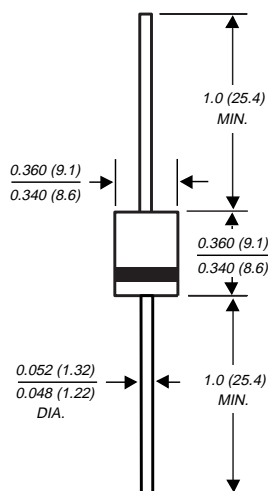


# SRP600A THRU SRP600K

## FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 800 Volts      Forward Current - 6.0 Amperes

### Case Style P600



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High surge current capability
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



### MECHANICAL DATA

**Case:** Void-free molded package body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.07 ounce, 2.1 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SRP 600A	SRP 600B	SRP 600D	SRP 600G	SRP 600J	SRP 600K	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	6.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300.0						Amps
Maximum instantaneous forward voltage at 6.0A	V <sub>F</sub>	1.3						Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	10.0 1.0						μA mA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	100	100	150	150	200	200	ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	300.0						pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	10.0						°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

#### NOTES:

- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, with both leads equally to heat sink

# RATINGS AND CHARACTERISTIC CURVES SRP600A THRU SRP600K

FIG. 1 - FORWARD CURRENT DERATING CURVE

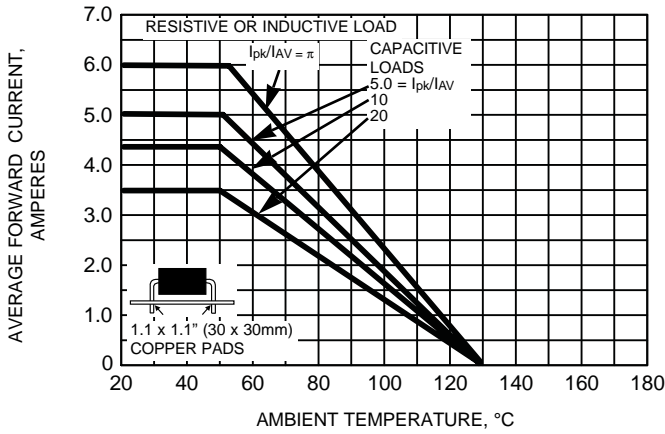


FIG. 2 - FORWARD CURRENT DERATING CURVE

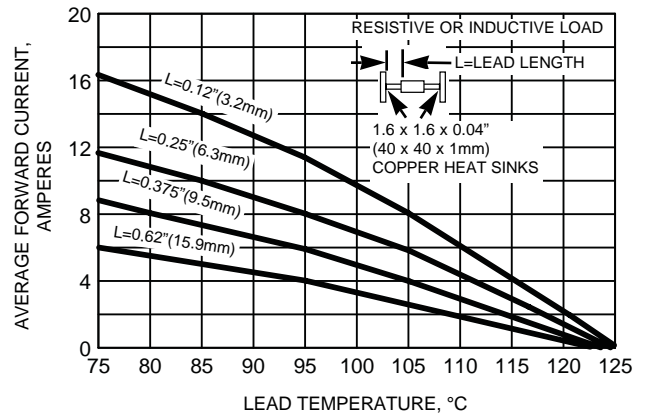


FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

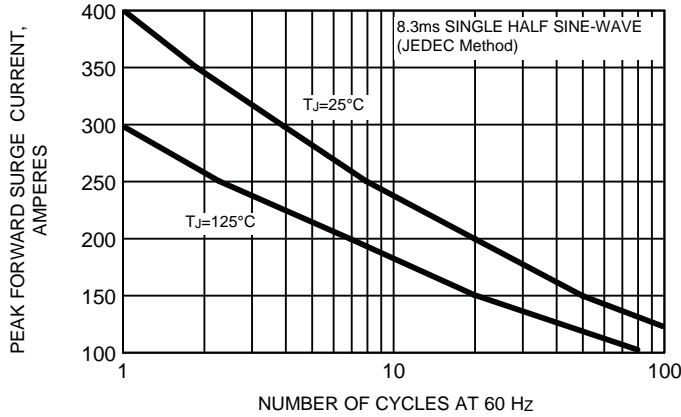


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

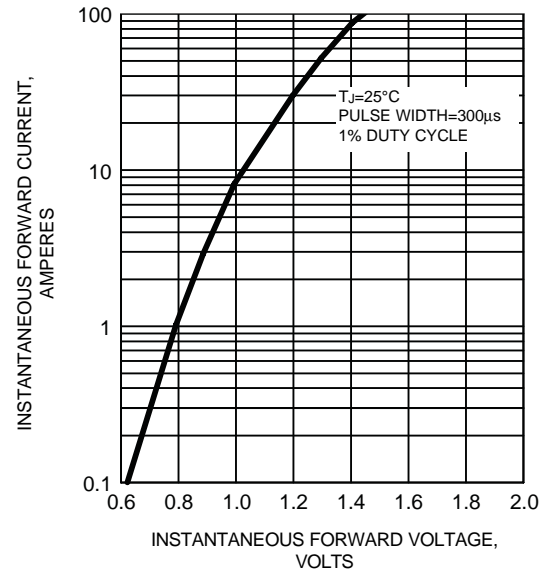


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

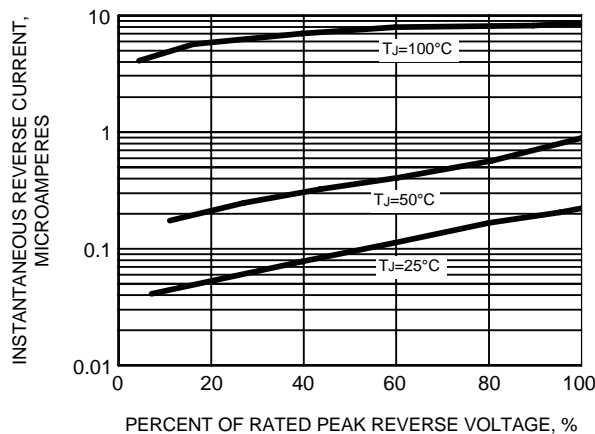


FIG. 6 - TYPICAL THERMAL RESISTANCE

