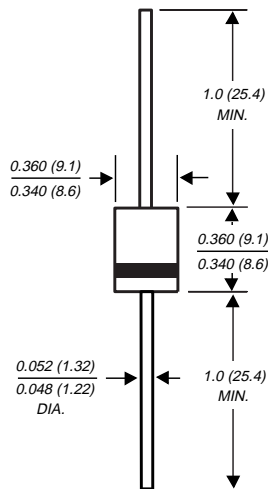


# SRP600A THRU SRP600K

## 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:

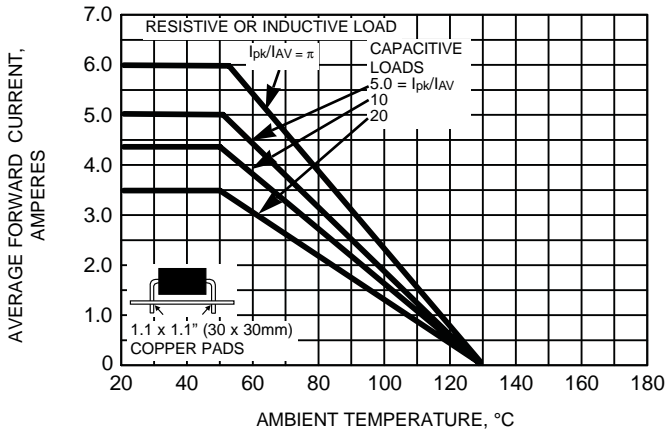
(1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

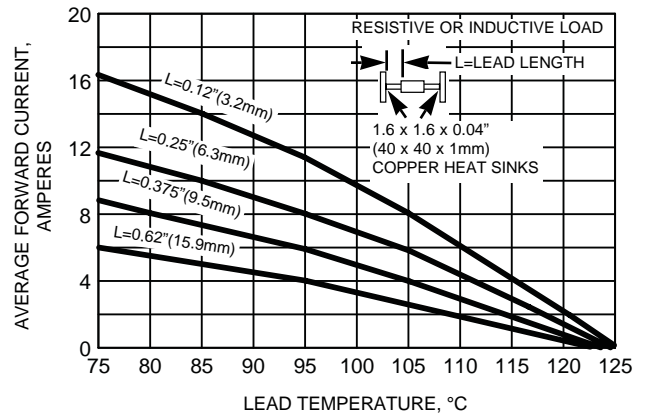
(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, with both leads equally to heat sink

# RATINGS AND CHARACTERISTIC CURVES SRP600A THRU SRP600K

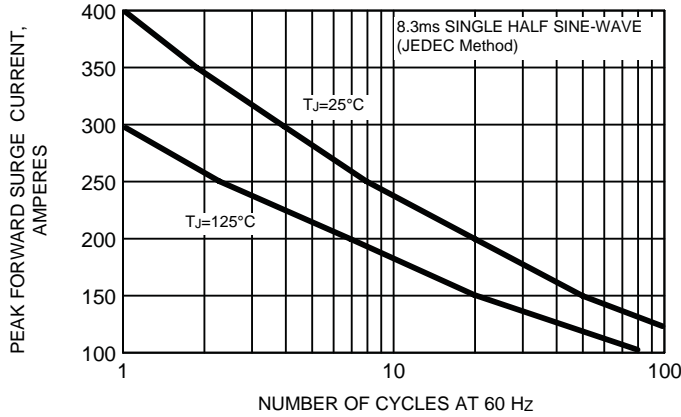
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



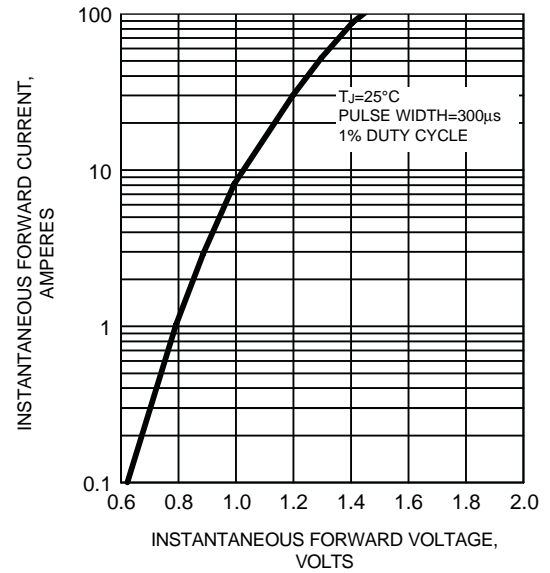
**FIG. 2 - FORWARD CURRENT DERATING CURVE**



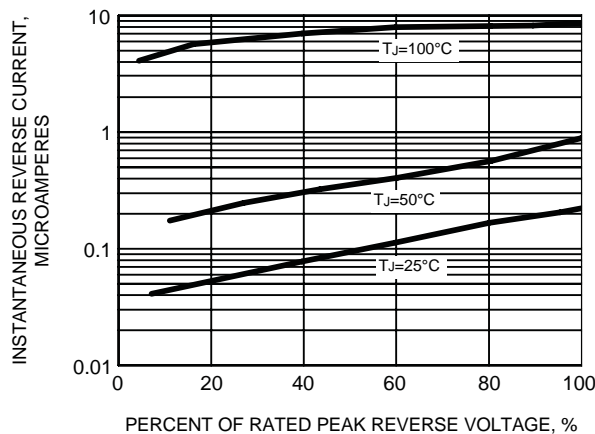
**FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 5 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 6 - TYPICAL THERMAL RESISTANCE**

