

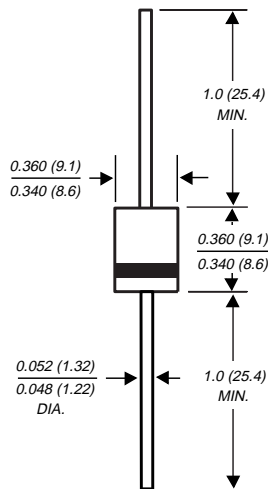
# SRP600A THRU SRP600K

## 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	$V_{RRM}$	50	100	200	400	600	800	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	6.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300.0						Amps
Maximum instantaneous forward voltage at 6.0A	$V_F$	1.3						Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	10.0 1.0						$\mu\text{A}$ mA
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	100	100	150	150	200	200	ns
Typical junction capacitance (NOTE 2)	$C_J$	300.0						pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	10.0						$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-50 to +125						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-50 to +150						$^\circ\text{C}$

### NOTES:

(1) Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

(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

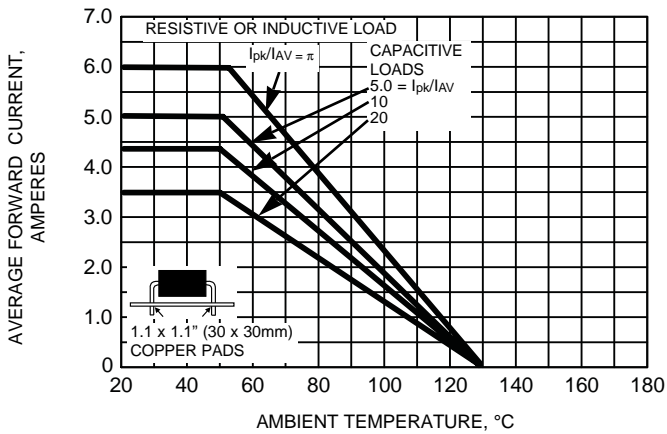


FIG. 2 - FORWARD CURRENT DERATING CURVE

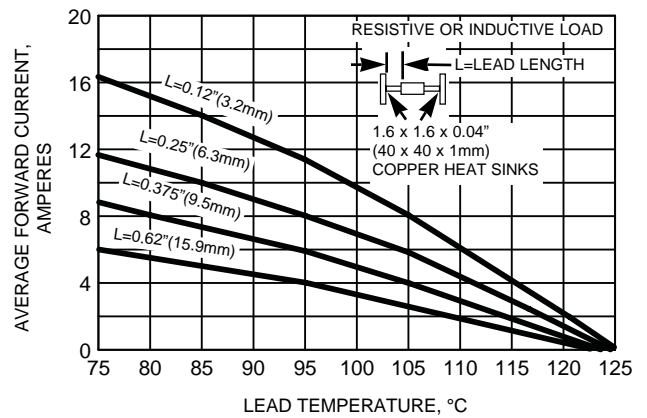


FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

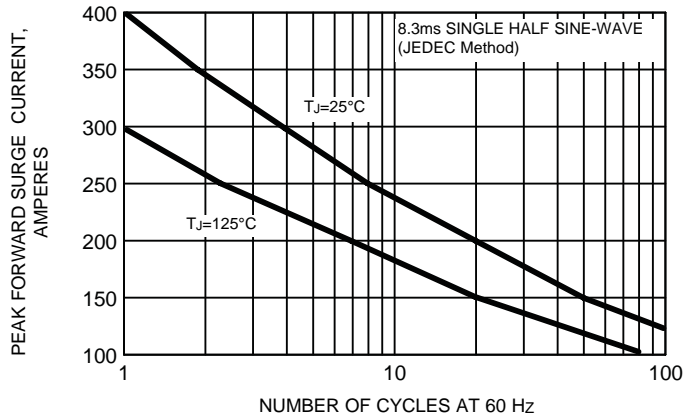


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

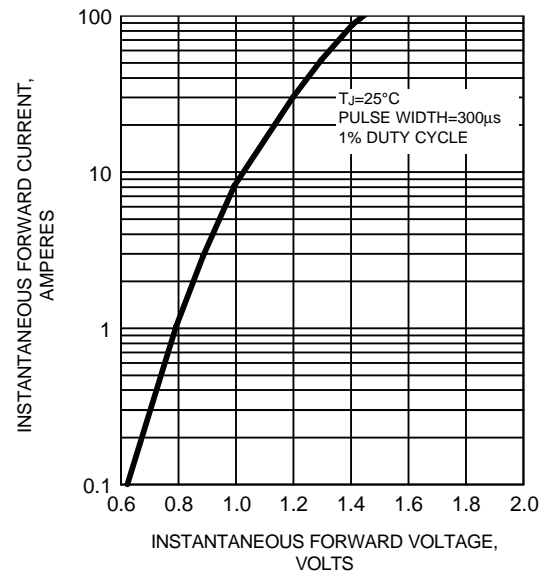


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

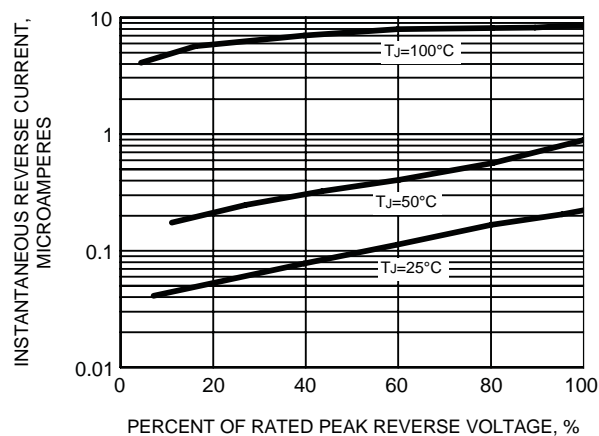


FIG. 6 - TYPICAL THERMAL RESISTANCE

