

PLASTIC SILICON RECTIFIERS

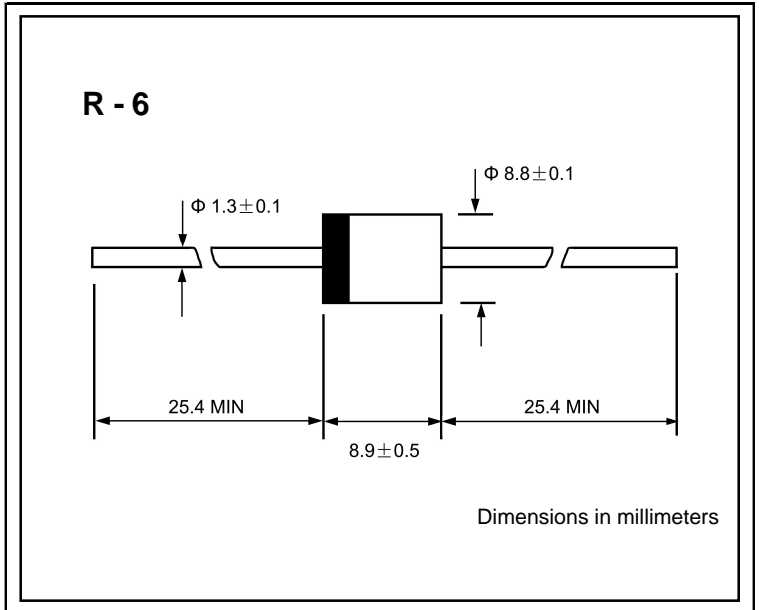
VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 6.0 A

FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC R-6, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.072 ounces, 2.04 grams
- ◇ Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		P600 A	P600 B	P600 D	P600 G	P600 J	P600 K	P600 M	P600 S	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	840	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1200	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=60^\circ\text{C}$	$I_{F(AV)}$	6.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	400								A
Maximum instantaneous forward voltage @ 6.0 A	V_F	0.9						1.0		V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R					5.0 1000				μA
Typical junction capacitance (Note1)	C_J					150				pF
Typical thermal resistance (Note2)	$R_{\theta JA}$					20				$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J					-55-----+125				$^\circ\text{C}$
Storage temperature range	T_{STG}					-55-----+150				$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

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FIG.1 – FORWARD DERATING CURVE

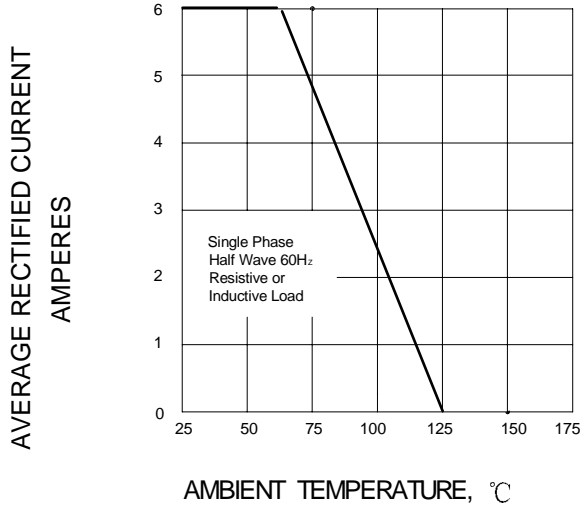


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

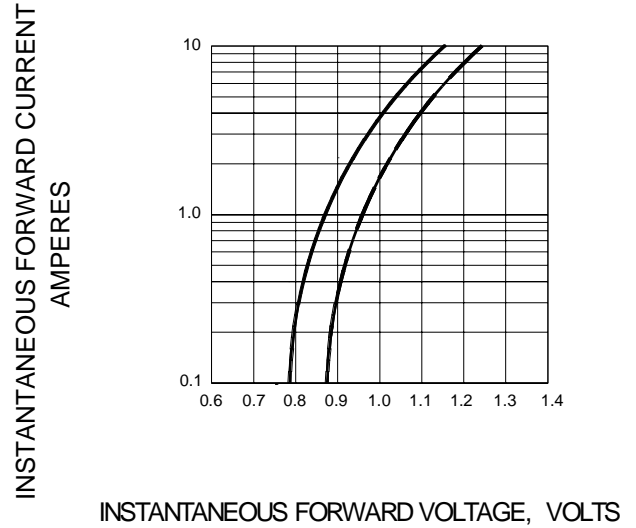


FIG.3 - PEAK FORWARD SURGE CURRENT

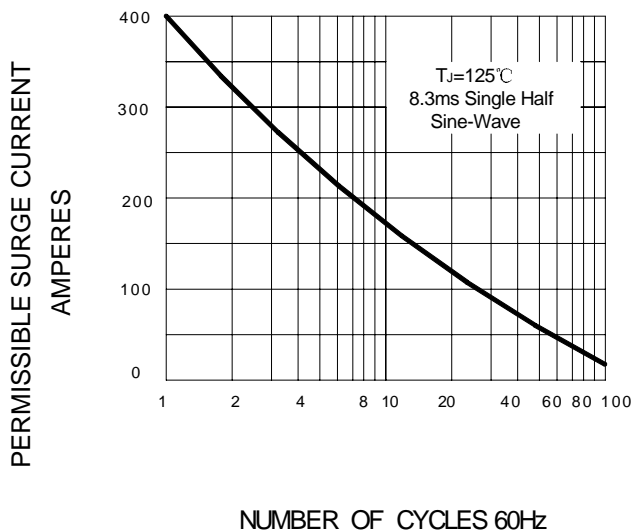


FIG.4 – TYPICAL JUNCTION CAPACITANCE

