



10A05 thru 10A10

General Purpose Plastic Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 10.0 Amperes

Features

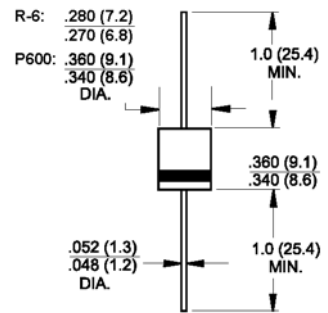
- ◆ Low cost
- ◆ Diffused junction
- ◆ Low forward voltage drop
- ◆ Low reverse leakage current
- ◆ High current capability
- ◆ The plastic material carries UL recognition 94V-0
- ◆ T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue



R-6 or P600

Mechanical Data

- ◆ Case : JEDEC R-6 molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.074 ounce, 2.1 grams
- ◆ Mounting position : Any



Dimensions in inches and (millimeters)

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 current by 20%

Parameter	Symbols	10A05	10A1	10A2	10A4	10A6	10A8	10A10	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ $T_A=50^\circ\text{C}$	$I_{F(AV)}$	10.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	600.0							Amps
Maximum forward Voltage at 10A DC	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	10.0 100							μA
Typical junction capacitance (Note 1)	C_J	150							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	10.0							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +125							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

- Notes:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal Resistance Junction to Ambient

RATINGS AND CHARACTERISTIC CURVES

($T_a = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 - FORWARD CURRENT DERATING CURVE

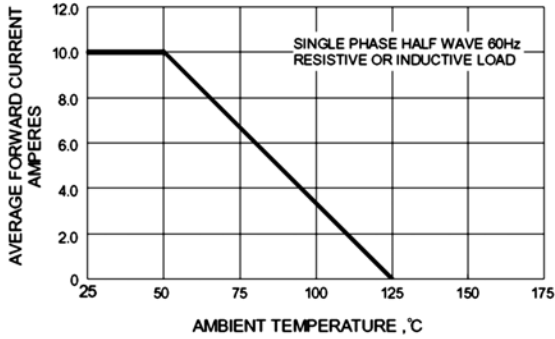


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

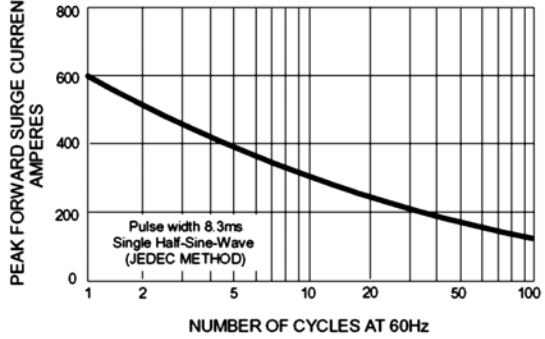


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

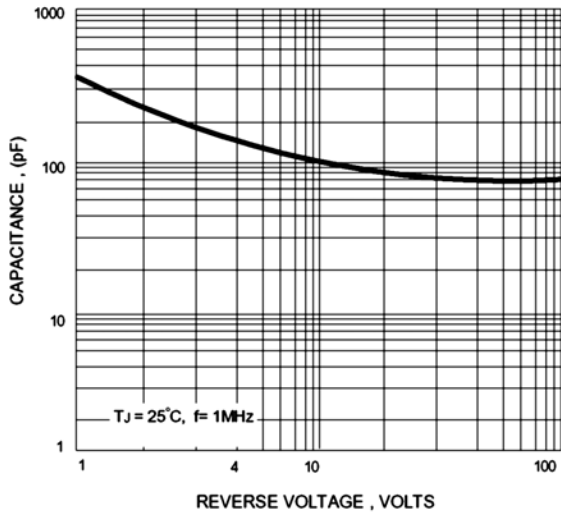


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

