



Pb Free Plating Product

## 10A05 thru 10A10

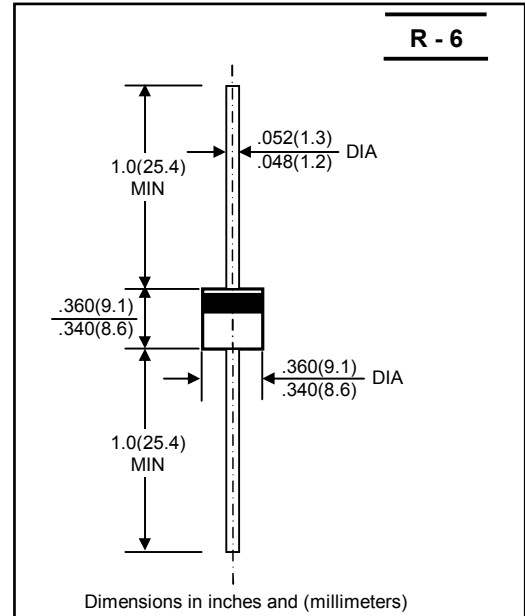
10.0 Ampere Plastic Silicon General Purpose Rectifier Diodes

### Features

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

### Mechanical Data

- **Case:** JEDEC R-6 molded plastic
- **Polarity:** Color band denotes cathode
- **Mounting position:** Any



### Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.. For capacitive load, derate current by 20%.

	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							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	600							Amps
Maximum forward voltage at 10A DC	$V_F$	1							Volts
Maximum DC reverse current @ $T_J = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_J = 100^\circ\text{C}$	$I_R$	10 100							$\mu\text{A}$
Typical junction capacitance (Note 1)	$C_J$	150							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	10							$^\circ\text{C/W}$
Operating temperature range	$T_J$	-55 to +125							$^\circ\text{C}$
Storage temperature range	$T_S$	-55 to +150							$^\circ\text{C}$

- Notes:
1. Measured at 1 MHz and applied reverse voltage of 4V D.C.
  2. Thermal Resistance Junction to Ambient.

FIG.1-TYPICAL FORWARD CHARACTERISTICS

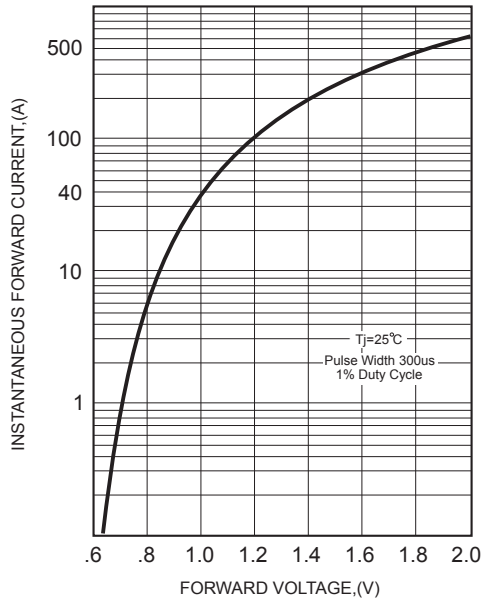


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

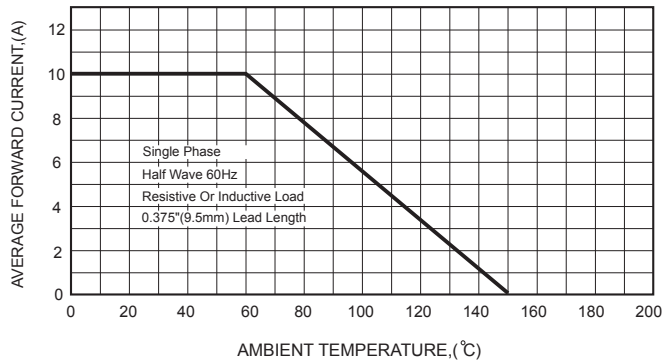


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

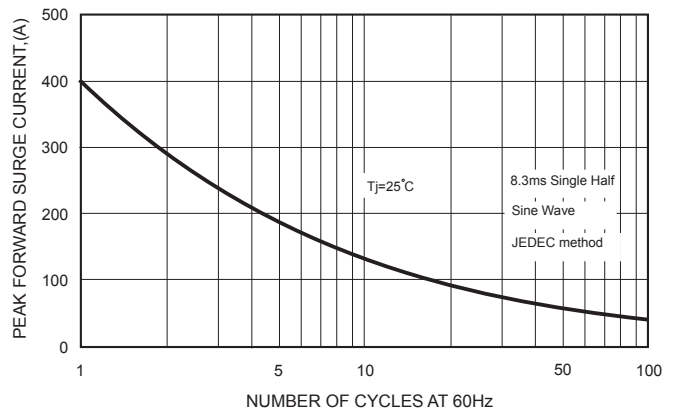


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

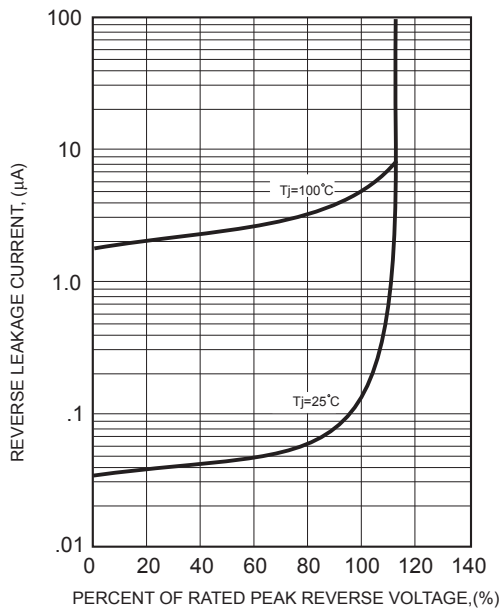


FIG.5 - TYPICAL THERMAL RESISTANCE VS. LEAD LENGTH

