

# 6A05 THRU 6A10

## GENERAL PURPOSE PLASTIC SILICON RECTIFIERS

Reverse Voltage – 50 to 1000 V

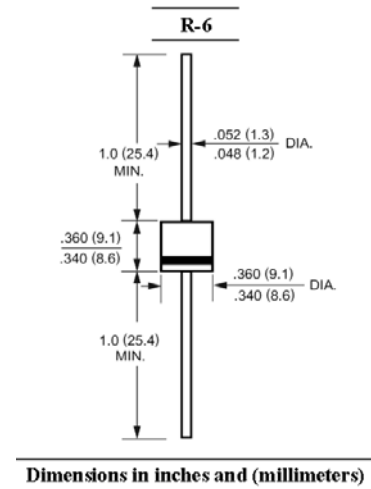
Forward Current – 6 A

### Features

- High surge current capability

### Mechanical Data

- Case: Molded plastic, R-6
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any



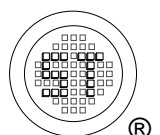
### Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	6A05	6A1	6A2	6A4	6A5	6A6	6A8	6A10	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	500	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	350	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	500	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 60^\circ\text{C}$	$I_{F(AV)}$	6								A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	400								A
Maximum Forward Voltage at 6 A	$V_F$	1.1								V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	10 1000								$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	150								pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	10								$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 55 to + 150								$^\circ\text{C}$
Storage Temperature Range	$T_{Stg}$	- 55 to + 150								$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C.

<sup>2)</sup> Thermal resistance from junction to ambient 0.375" (9.5 mm) lead length P.C.B mounted with 1.1 X 1.1" (30 X 30 mm) copper pads.



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