



6A05 THRU 6A10

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

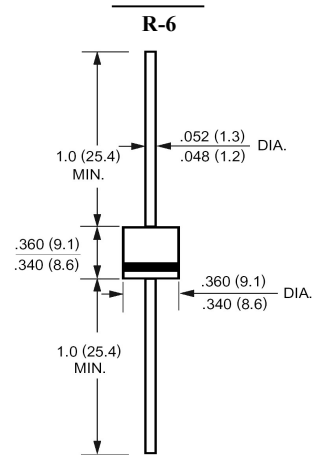
REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 6.0 AMPERE

FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Void-free Plastic in a R-6 package.
- Suffix "H" indicates Halogen-free parts, ex. 6A05H

MECHANICAL DATA

Case : Molded plastic, R-6
 Epoxy : UL 94V-O rate flame retardant
 Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed
 Polarity : Color band denotes cathode end
 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, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Parameter	Symbols	6A05	6A1	6A2	6A4	6A6	6A8	6A10	Units
Maximum Recurrent 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 .375"(9.5mm) Lead Length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	6.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250.0							Amp
Maximum Forward Voltage at 6.0A DC and 25°C	V_F	1.1							Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	10.0 100							uAmp
Typical Junction Capacitance (Note 1)	C_J	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10.0							°C/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150							°C

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted with 1.1x1.1" (30x30mm)copper pads.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

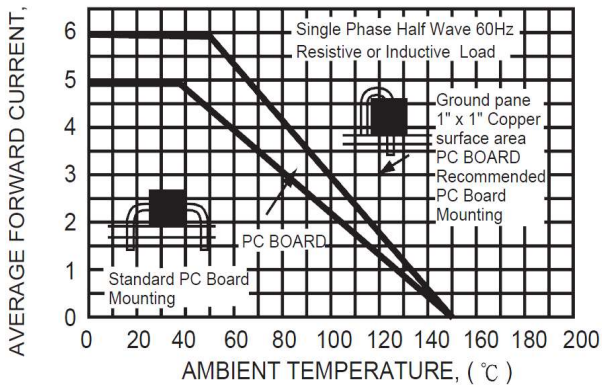


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

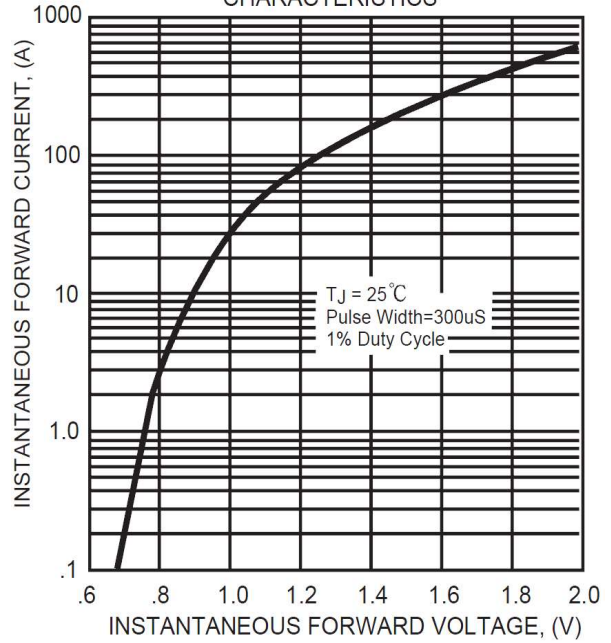


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

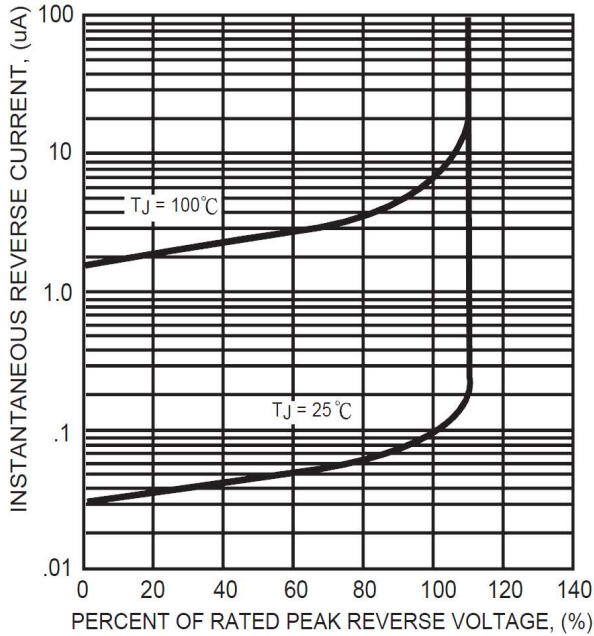


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

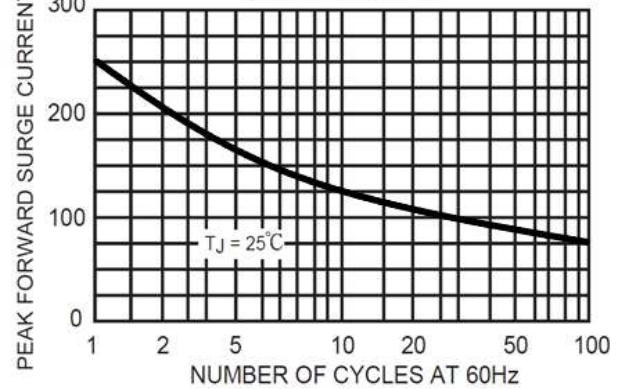


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH

