

8A05 THRU 8A10

GENERAL PURPOSE PLASTIC SILICON RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 8.0 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.
- High current operation 8.0 ampere at $T_A=60^{\circ}\text{C}$
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, R-6

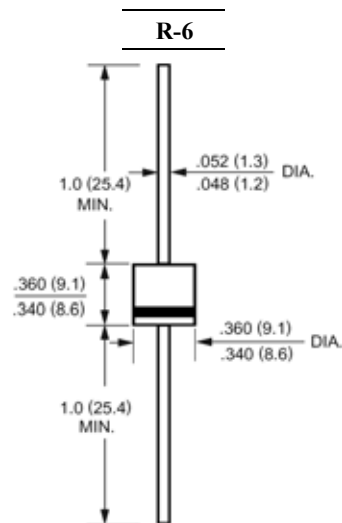
Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.07ounce, 2.1gram



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%.

	Symbols	8A05	8A1	8A2	8A4	8A6	8A8	8A10	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 $T_A=60^{\circ}\text{C}$	$I_{(AV)}$	8.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400							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 1000							uAmp
Typical Junction Capacitance (Note 1)	C_J	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10							$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150							$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150							$^{\circ}\text{C}$

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance From Junction to Ambient 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- MAXIMUM FORWARD CURRENT DERATING CURVE

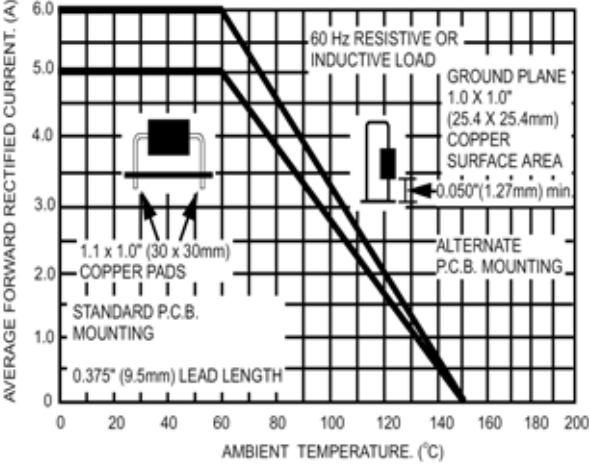


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

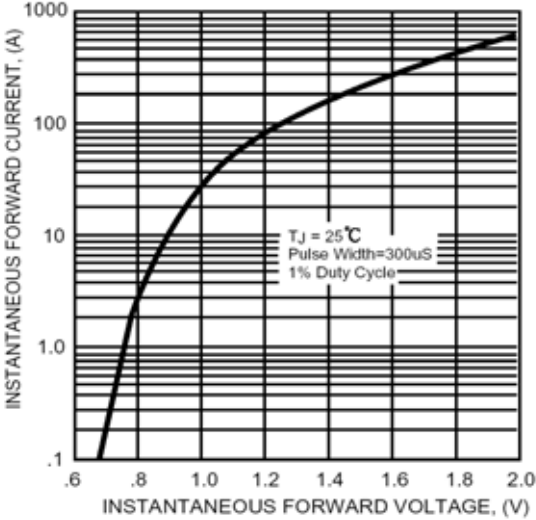


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

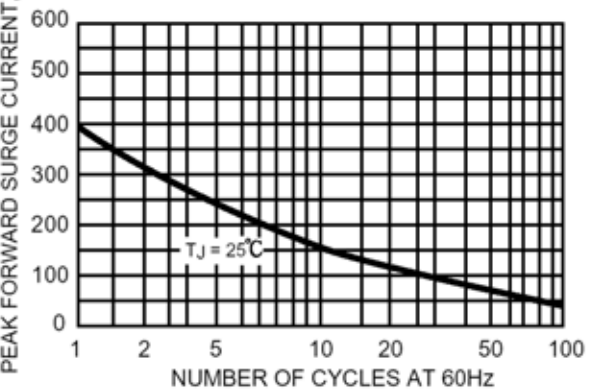


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

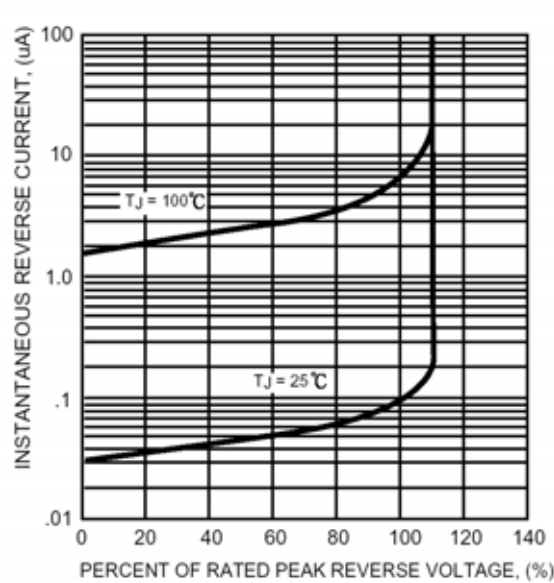


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH

