



10A05 THRU 10A10

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 10.0 AMPERE

FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Suffix "H" indicates Halogen-free parts, ex. 10A05H

MECHANICAL DATA

Case : Molded plastic, R-6

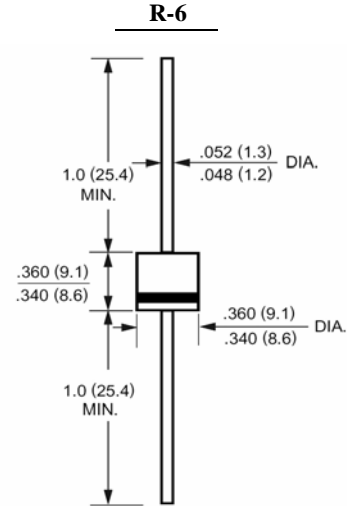
Epoxy : UL 94V-O rate flame retardant

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%.

Parameter	Symbols	10A05	10A1	10A2	10A4	10A6	10A8	10A10	Units
Maximum Recercent 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	$I_{(AV)}$	10.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400.0							Amp
Maximum Forward Voltage at 10.0A DC and 25°C	V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	10.0 100							uAmp
Typical Junction Capacitance (Note 1)	C_J	135							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	9.0							°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 form 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

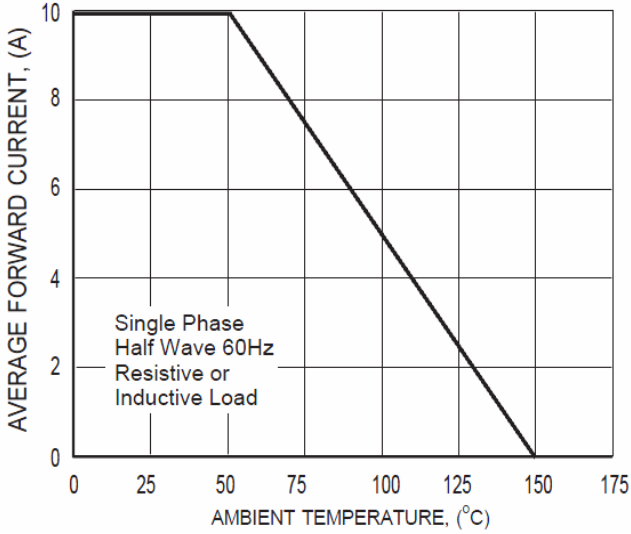


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

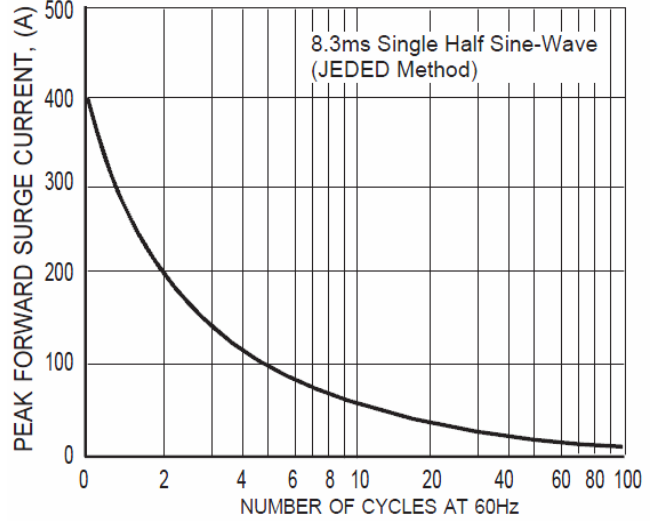


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

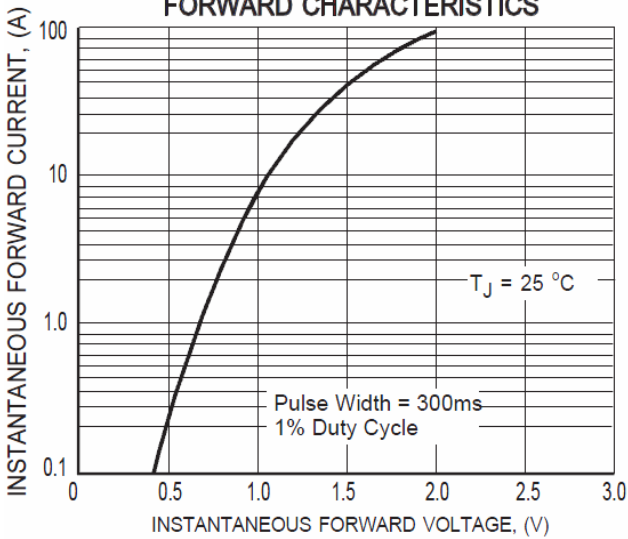


FIG.4 TYPICAL REVERSE CHARACTERISTICS

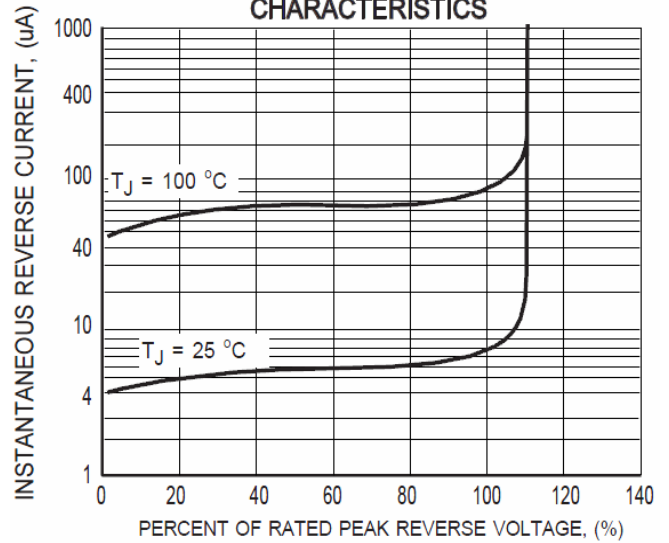


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

