10AX SERIES

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

产

品

规

确

格

认

书

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 ctilizing Flame Retardant Epoxy Molding Compound.

· Void-free Plastic in a R-6 package.

· High current operation 10.0 ampere at $T_A\!\!=\!\!55^{\circ}\!\!\!\!\!\mathrm{C}$

· Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, R-6

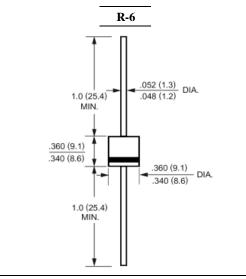
Epoxy: UL 94V-O rate flame retardant

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 $25\,^\circ\!\!\mathrm{C}$ 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 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 =55℃	I _(AV)	10.0							Amp
Peak Forward Surge Current,									
8.3ms single half-sine-wave	I_{FSM}	I _{FSM} 400							Amp
superimposed on rated load (JEDEC method)									
Maximum Forward Voltage at 10.0A DC and 25℃	$\mathbf{V_F}$	1.1							Volts
Maximum Reverse Current at T _A =25℃		10.0							1
at Rated DC Blocking Voltage T _A =100℃	$\mathbf{I}_{\mathbf{R}}$	I_R 100							uAmp
Typical Junction Capacitance (Note 1)	C_{J}	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	8							°C/W
Operating Junction Temperature Range	T_{J}	-55 to +150							С
Storage Temperature Range	Tstg	-55 to +150							ဗ

NOTES:

- 1- Measured at 1 MH_Z 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.



RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD **CHARACTERISTICS** 500 INSTANTANEOUS FORWARD CURRENT, (A) 100 40 10 Ti=25℃ Pulse Width 300us 1% Duty Cycle .6 .8 1.0 1.2 1.4 1.6 1.8 2.0 FORWARD VOLTAGE,(V)

FIG.3 - TYPICAL REVERSE

CHARACTERISTICS

100

10

10

T_{j=100}*C

T_{j=25}*C

100

20 40 60 80 100 120 140

PERCENT OF RATED PEAK REVERSE VOLTAGE,(%)

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

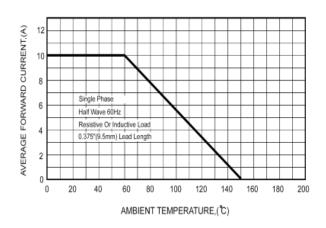


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

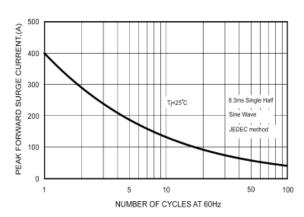


FIG.5 - TYPICAL THERMAL RESISTANCE VS. LEAD LENGTH

