10A05 THRU 10A10

10.0 AMP SILICON RECTIFIERS



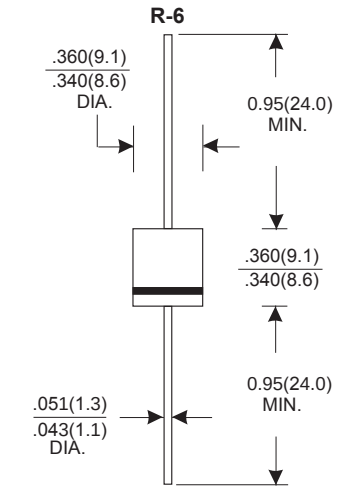
FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 2.0395 grams
* Lead Free Finish/RoHS Compliant

VOLTAGE RANGE
50 TO 1000 Volts
CURRENT
10.0 Amperes



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=60℃	10.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	400							A
Maximum Instantaneous Forward Voltage at 10.0A	1.0							V
Maximum DC Reverse Current Ta=25℃	10.0							μA
at Rated DC Blocking Voltage Ta=100℃	400							μA
Typical Junction Capacitance (Note 1)	100							pF
Typical Thermal Resistance RθJA (Note 2)	10							℃/W
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +150							℃

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance from Junction to Ambient .375" (9.5mm) lead length.

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RATING AND CHARACTERISTIC CURVES (10A05 THRU 10A10)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

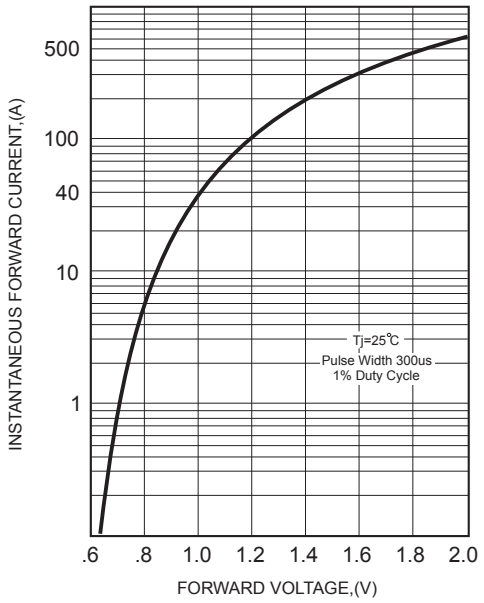


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

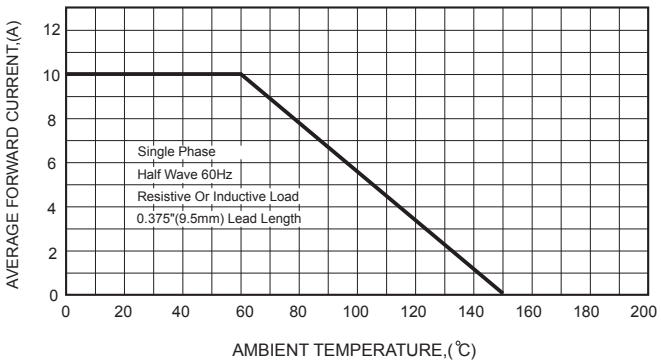


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

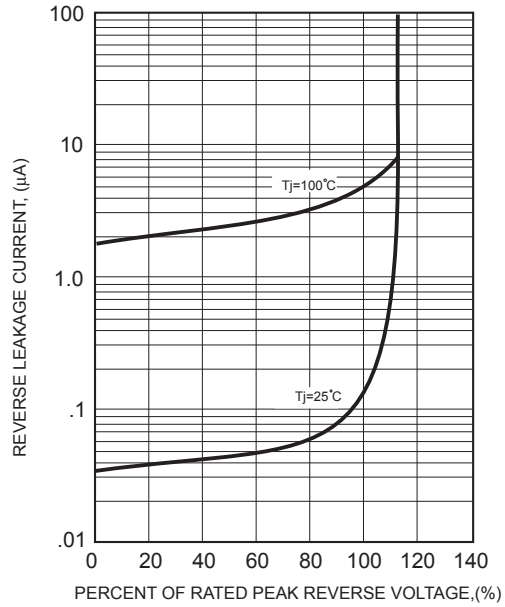


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

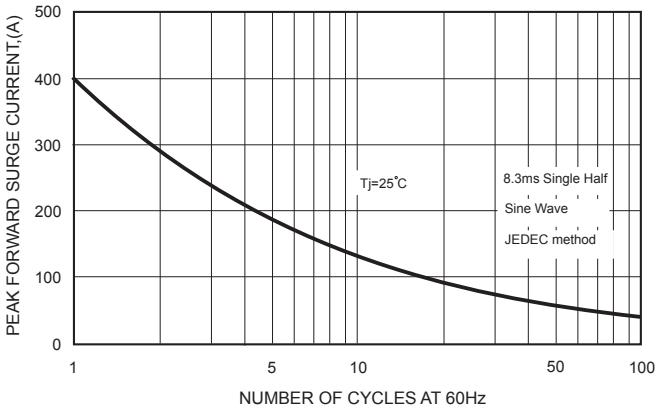
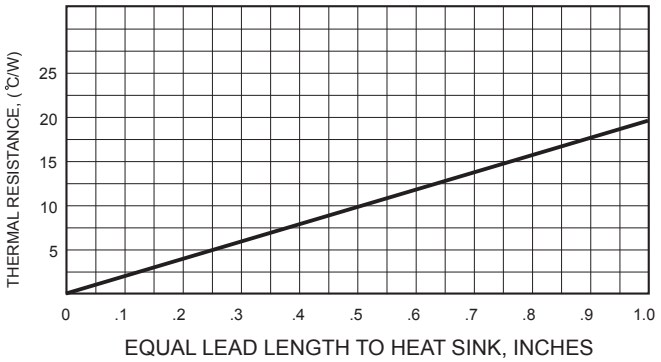


FIG.5 - TYPICAL THERMAL RESISTANCE VS. LEAD LENGTH



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