



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

10A05
THRU
10A10

TECHNICAL SPECIFICATIONS OF SILICON RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 10 Amperes

FEATURES

- * Low cost
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge current capability

MECHANICAL DATA

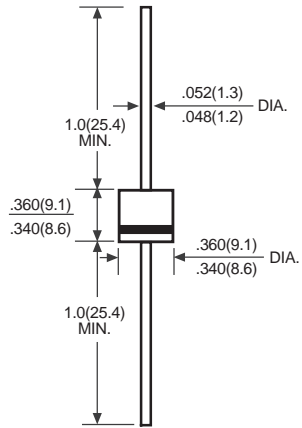
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 2.08 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



R-6



Dimensions in inches and (millimeters)

	SYMBOL	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 at TA = 60°C	I _O	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400							Amps
Maximum Instantaneous Forward Voltage 10A DC	V _F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@ TA = 25°C						25	μAmps
		@ TA = 100°C						500	
Typical Junction Capacitance (Note)	C _J	150							pF
Typical Thermal Resistance	R _{θJA}	10							°C/W
Operating Temperature Range	T _J	-55 to +125							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (10A05 THRU 10A10)

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

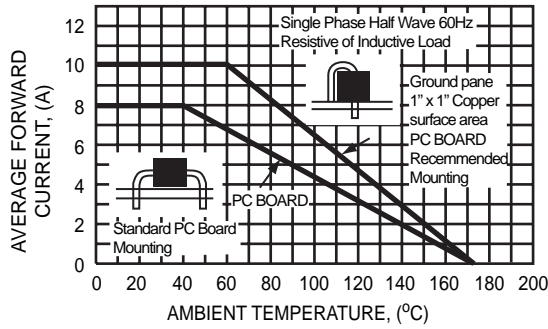


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

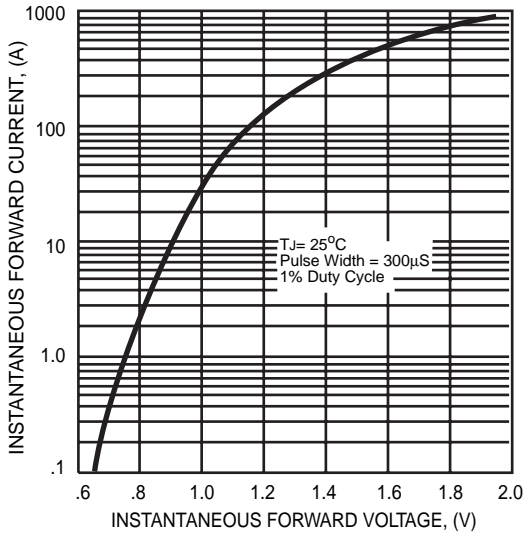


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

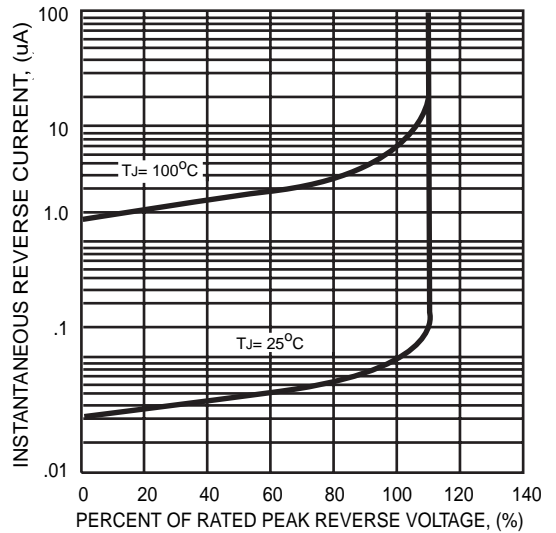


FIG.4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

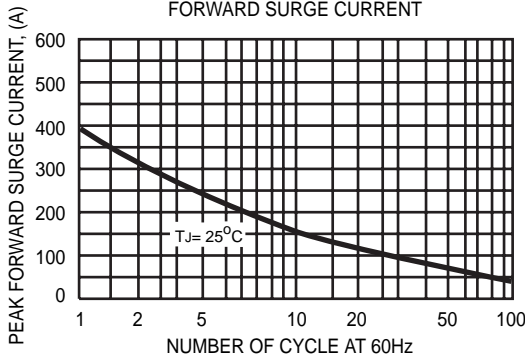
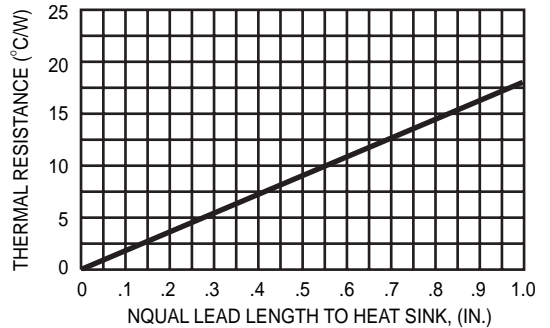


FIG.5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH



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