

## 10A05 THRU 10A10

### SILICON RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

#### FEATURES

- High surge current capability
- Low leakage
- Low forward voltage drop
- High current capability
- Low lost

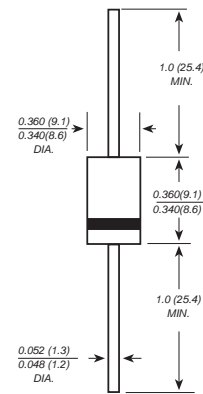
#### MECHANICAL DATA

Case: Molded plastic black body  
 EpoxyDevice has UL flammability classification 94V-O  
 Lead: MIL-STD-202E method 208C guaranteed  
 Mounting position: Any  
 Weight: 2.08 gram

#### 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)

#### MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

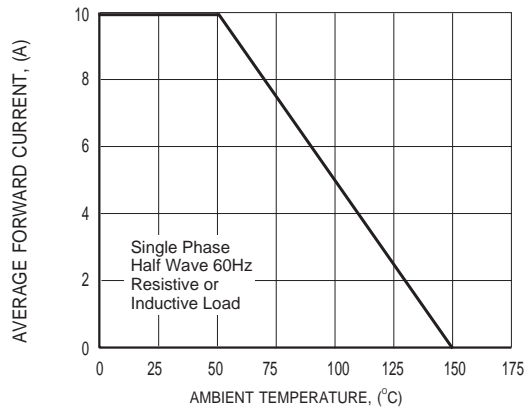
RATINGS	SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 50°C	I <sub>O</sub>	10							Amps
Peak Forward Surge Current IFM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	400							Amps
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	9							°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	135							pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

#### ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

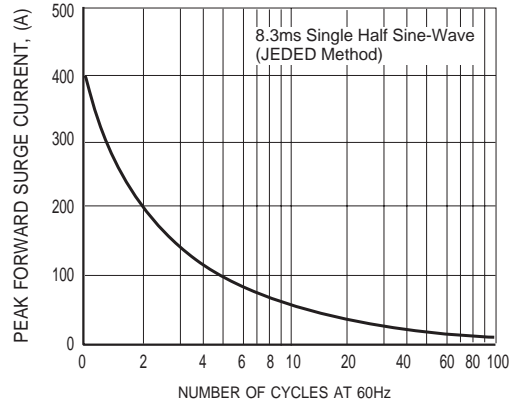
CHARACTERISTICS	SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Forward Voltage at 10A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Average Reverse Current at @TA = 25°C	I <sub>R</sub>	10							uAmps
Rated DC Blocking Voltage @TA = 100°C		100							
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) Lead Length at TL=75°C		50							

- NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC  
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
 3. Thermal Resistance: At 9.5mm lead lengths, PCB mounted.

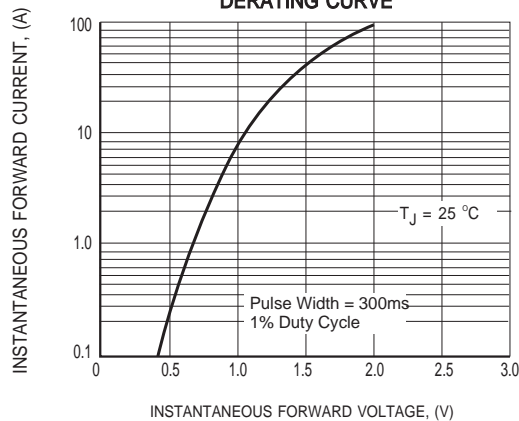
## RATING AND CHARACTERISTICS CURVES ( 10A05 THRU 10A10 )



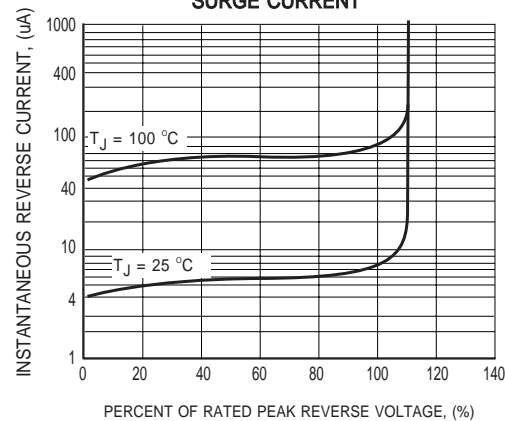
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



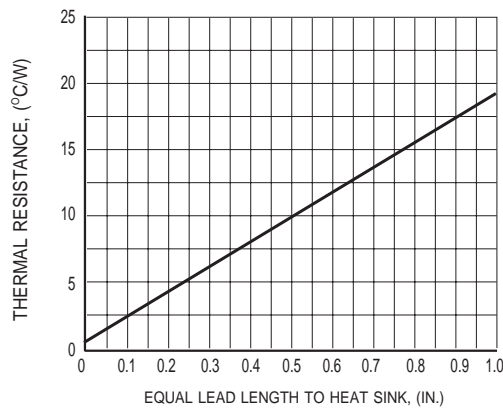
**FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL REVERSE CHARACTERISTICS**



**FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH**