

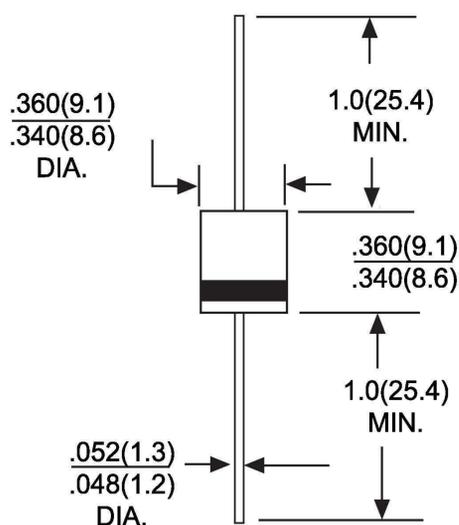


# 10A05 THRU 10A10

## 10.0 AMPS. SILICON RECTIFIERS

**Voltage Range**  
50 to 1000 Volts  
**Current**  
10.0 Amperes

### R-6



Dimensions in inches and (millimeters)

#### Features

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

#### Mechanical Data

- Cases: JEDEC R-6 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.074 ounce, 2.1 grams
- Mounting position: Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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 Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T <sub>A</sub> = 50°C	I <sub>F(AV)</sub>	10.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated LoadM (JEDEC method)	I <sub>FSM</sub>	600							A
Maximum Forward Voltage at 10A DC	V <sub>F</sub>	1.0							V
Maximum DC Reverse Current @ T <sub>J</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>J</sub> = 100°C	I <sub>R</sub>	10.0 100							uA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	150							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	10.0							°C/W
Operating Temperature Range	T <sub>J</sub>	-50 to + 200							°C
Storage Temperature Range	T <sub>STG</sub>	-50 to + 150							°C

NOTES: 1. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 Volts D.C.  
2. Thermal Resistance Junction to Ambient

# RATING AND CHARACTERISTIC CURVES 10A05 THRU 10A10



FIG.1- FORWARD CURRENT DERATING CURVE

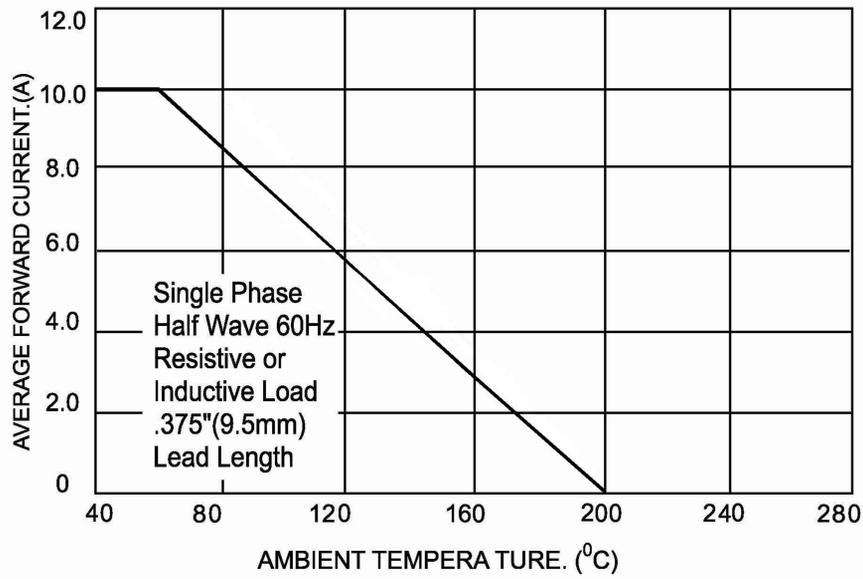


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

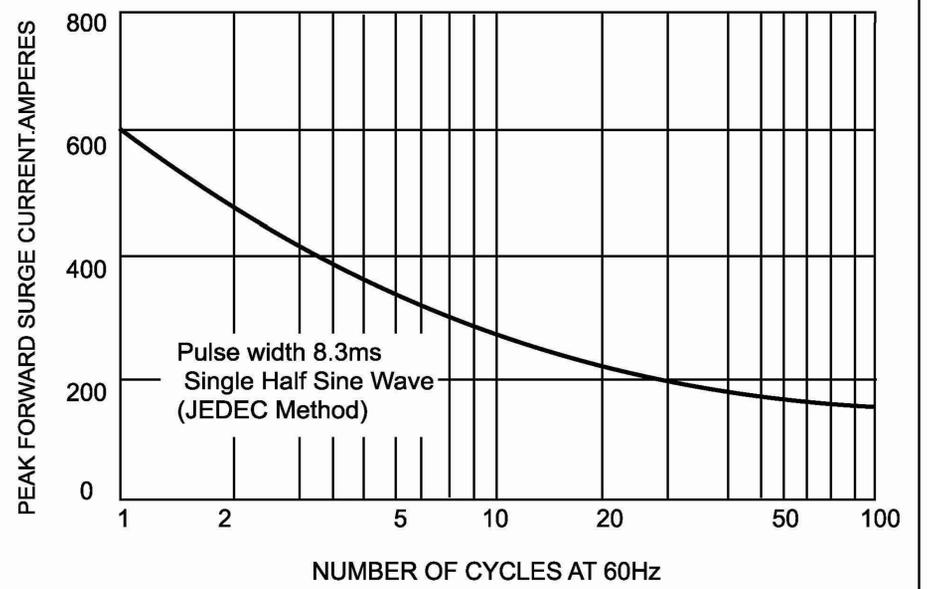


FIG.3- TYPICAL JUNCTION CAPACITANCE

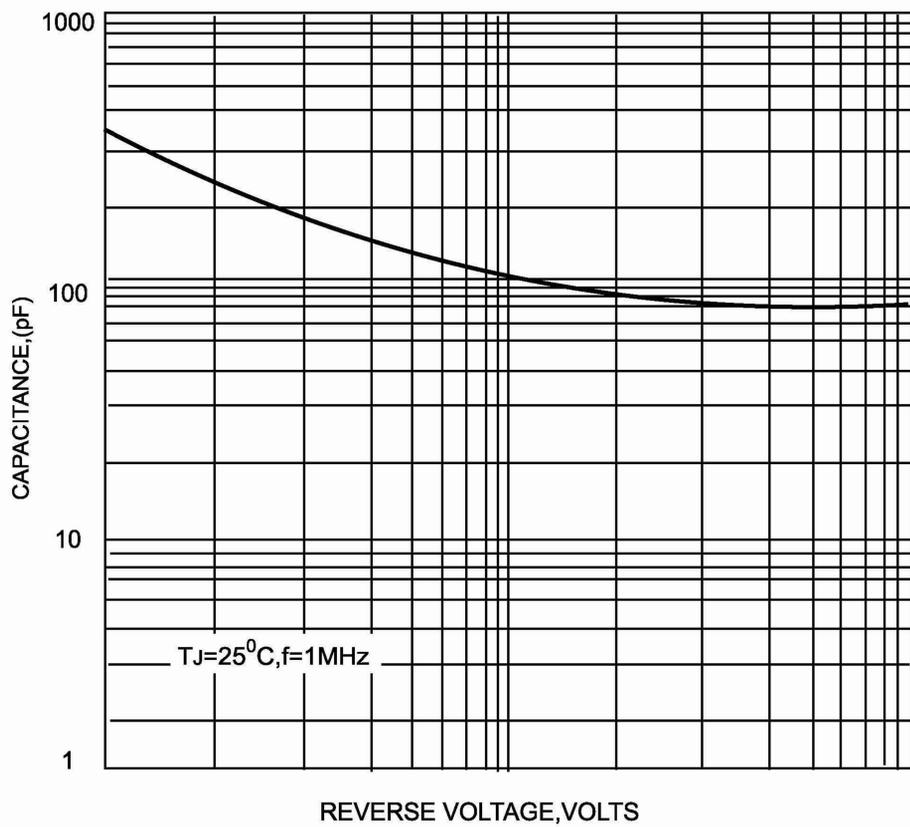


FIG.4- TYPICAL FORWARD CHARACTERISTICS

