

# 10A07E

## SILICON RECTIFIER DIODE

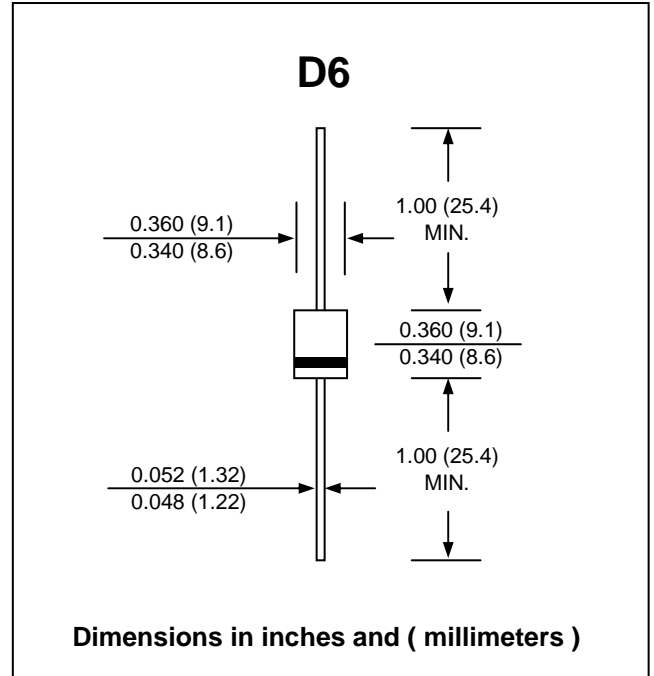
**PRV : 1000 Volts**  
**Io : 10 Amperes**

**FEATURES :**

- \* Diffused Junction
- \* High current capability and Low Forward Voltage Drop
- \* Surge Overload Rating to 600A Peak
- \* Low Reverse Leakage Current
- \* Pb / RoHS Free

**MECHANICAL DATA :**

- \* Case : molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 2.049 grams



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 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%.

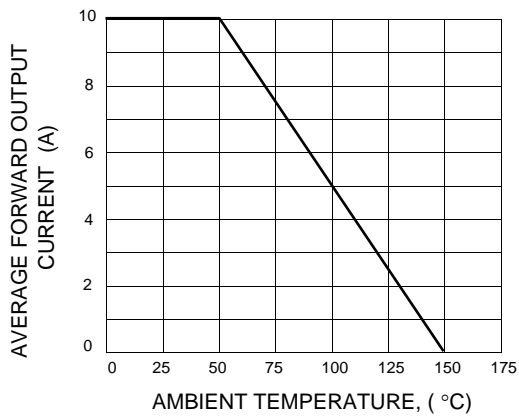
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	1000	V
Average Rectified Output Current (Note 1) $T_a = 50^{\circ}C$	$I_o$	10	A
Non-Repetitive Peak Forward Surge Current 8.3 ms Single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	400	A
Maximum Forward Voltage at $I_F = 10$ A	$V_F$	1.0	V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at rated DC Blocking Voltage $T_a = 100^{\circ}C$	$I_R$ $I_{R(H)}$	10 100	$\mu A$ $\mu A$
Typical Junction Capacitance (Note 2)	$C_j$	150	pF
Typical Thermal Resistance	$R_{\theta JC}$	3.0	$^{\circ}C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 150	$^{\circ}C$

**Notes :**

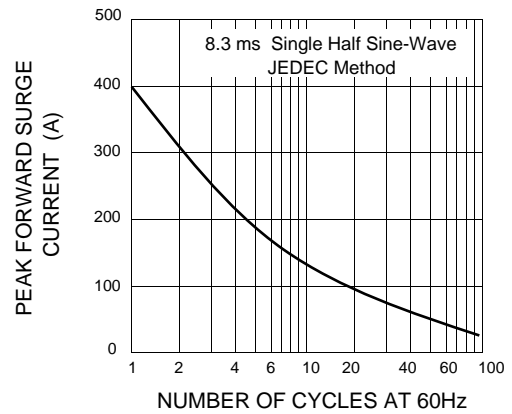
- (1) Leads maintained at ambient temperature at a distance of 9.5 mm from the case.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

**RATING AND CHARACTERISTIC CURVES ( 10A07E )**

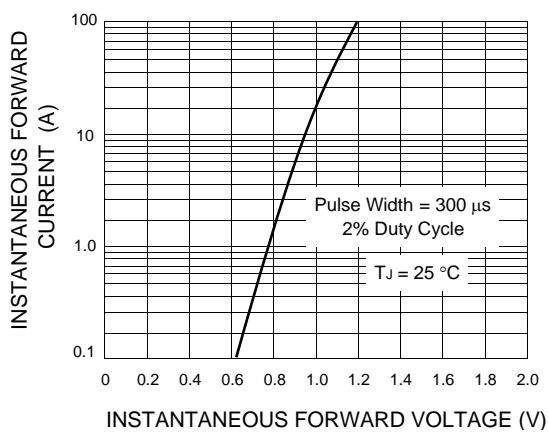
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**

