

# 10A01-10A07

**PRV : 50 - 1000 Volts**  
**I<sub>o</sub> : 10 Amperes**

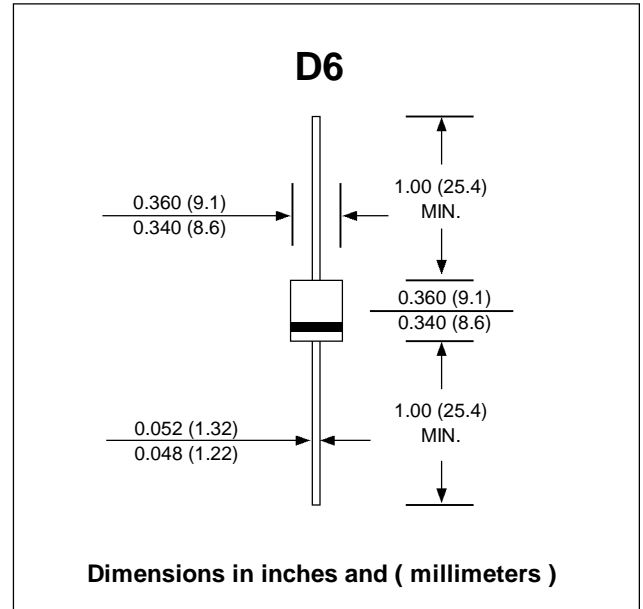
## FEATURES :

- \* 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-O 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

# SILICON RECTIFIER DIODES



## 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%.

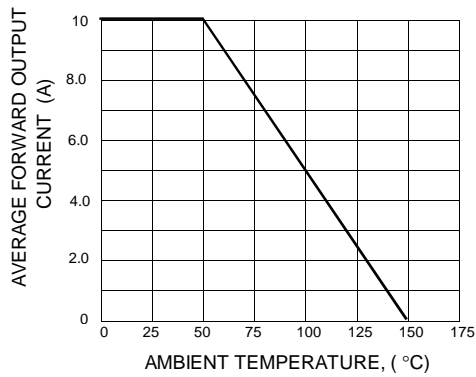
RATING	SYMBOL	10A01	10A02	10A03	10A04	10A05	10A06	10A07	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average Rectified Output Current (Note 1) $T_a = 50^\circ\text{C}$	$I_o$	10							A
Non-Repetitive Peak Forward Surge Current 8.3 ms Single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	600							A
Maximum Forward Voltage at $I_f = 10$ Amps.	$V_F$	1.3							V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
	$I_{R(H)}$	100							$\mu\text{A}$
Typical Junction Capacitance (Note 2)	$C_j$	150				80			pF
Thermal Resistance	$R_{\theta JC}$	0.8							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 150							$^\circ\text{C}$

### Notes :

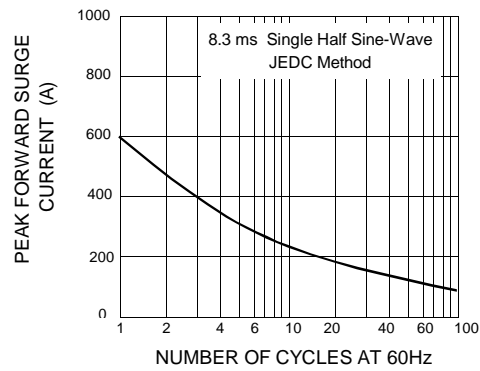
- (1) Leads maintained at ambient temperature at a distance of 9.5 mm fro, the case.
- (2) Measured at 1.0 MHz and applied reverse volage of 4.0V DC.

## RATING AND CHARACTERISTIC CURVES ( 10A01 - 10A07 )

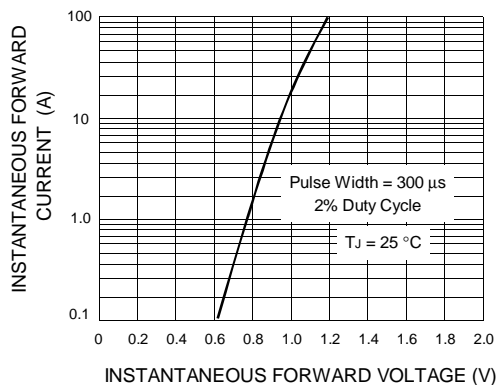
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**

