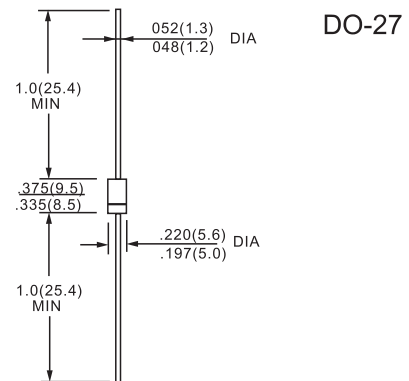


## FEATURES

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : DO-201AD 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 : 1.1 grams



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating	Symbol	MBR320	MBR330	MBR340	MBR350	MBR360	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	20	30	40	50	60	V
Average Rectified Forward Current, $T_A = 65^\circ\text{C}$ ( $R_{\theta JA} = 28^\circ\text{C/W}$ , P.C. Board Mounting, see Note 3)	$I_O$	3.0					A
Non-Repetitive Peak Surge Current (2) (Surge applied at rated load conditions, half wave, single phase 60 Hz, $T_L = 75^\circ\text{C}$ )	$I_{FSM}$	80					A
Operating and Storage Junction Temperature Range (Reverse Voltage applied)	$T_J, T_{stg}$	- 65 to $150^\circ\text{C}$					$^\circ\text{C}$
Peak Operating Junction Temperature (Forward Current applied)	$T_{J(pk)}$	150					$^\circ\text{C}$

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient (see Note 3, Mounting Method 3)	$R_{\theta JA}$	28	$^\circ\text{C/W}$

### ELECTRICAL CHARACTERISTICS ( $T_L = 25^\circ\text{C}$ unless otherwise noted) (2)

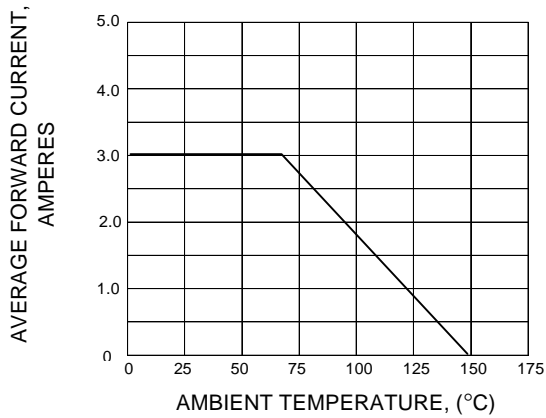
Characteristic	Symbol	MBR320	MBR330	MBR340	MBR350	MBR360	Unit
Maximum Instantaneous Forward Voltage (1) ( $i_F = 1.0$ Amp) ( $i_F = 3.0$ Amp) ( $i_F = 9.4$ Amp)	$V_F$	0.500 0.600 0.850			0.600 0.740 1.080		V
Maximum Instantaneous Reverse Current @ Rated dc Voltage (1) $T_L = 25^\circ\text{C}$ $T_L = 100^\circ\text{C}$	$i_R$	0.60 20					mA

(1) Pulse Test: Pulse Width = 300  $\mu\text{s}$ , Duty Cycle = 2.0%.

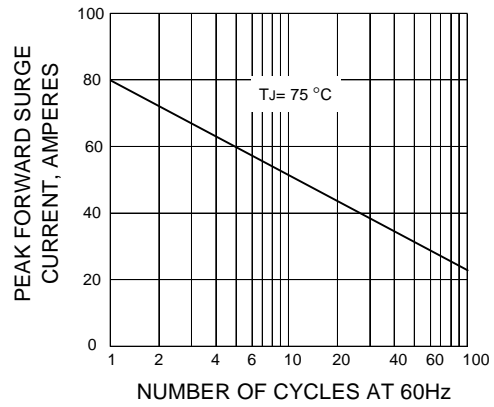
(2) Lead Temperature reference is cathode lead 1/32" from case.

**RATINGS AND CHARACTERISTIC CURVES MBR320 THRU MBR360**

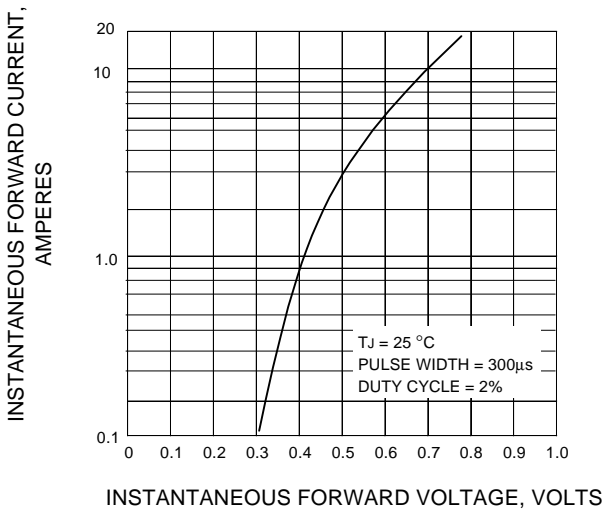
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

