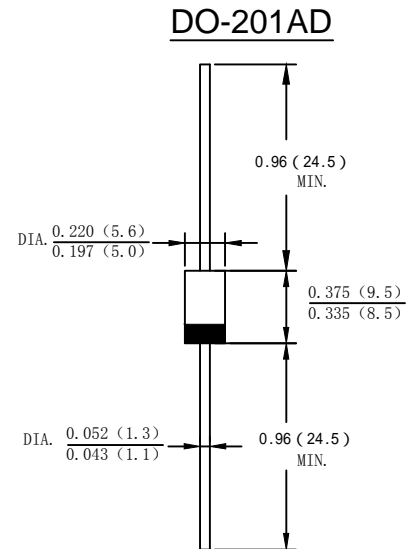


#### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

#### Mechanical Data

- Case: Molded plastic DO-201AD
- Terminals: Plated leads solderable per MIL-STD-202,Method 208 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version



Dimensions in inches and (millimeters)

#### 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	SYMBOL	FR301	FR302	FR303	FR304	FR305	FR306	FR307	Unit
Maximum Recurrent 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
Maximum Average Forward Rectified Current.375"(9.5mm) lead length@ $T_L=100^\circ C$	$I_F(AV)$	3.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	125							A
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	64.84							$A^2s$
Forward Voltage @ $I_F=3.0A$	$V_{FM}$	1.3							V
Peak Reverse Current @ $T_A=25^\circ C$	$I_R$	5.0							uA
At Rated DC Blocking Voltage @ $T_A=125^\circ C$		100							
Typical Junction Capacitance (Note 1)	$C_J$	65				40			pF
Typical Thermal Resistance Junction to Ambient(Note 2)	$R_{\theta JA}$	25							$^\circ C/W$
Maximum Reverse Recovery Time(Note 3)	$T_{rr}$	150				250	500		ns
Operating Temperature Range	$T_J$	-55 to +125							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

Note:1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Leads maintained at ambient temperature at a distance of 9.5mm from the case

3.Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$

## FR301 THRU FR307

FIG. 1 – FORWARD CURRENT DERATING CURVE

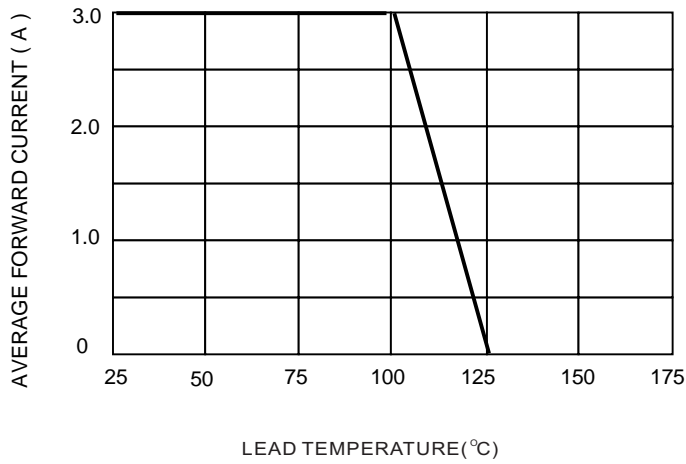


FIG.2-TYPICAL FORWARD CHARACTERISTICS

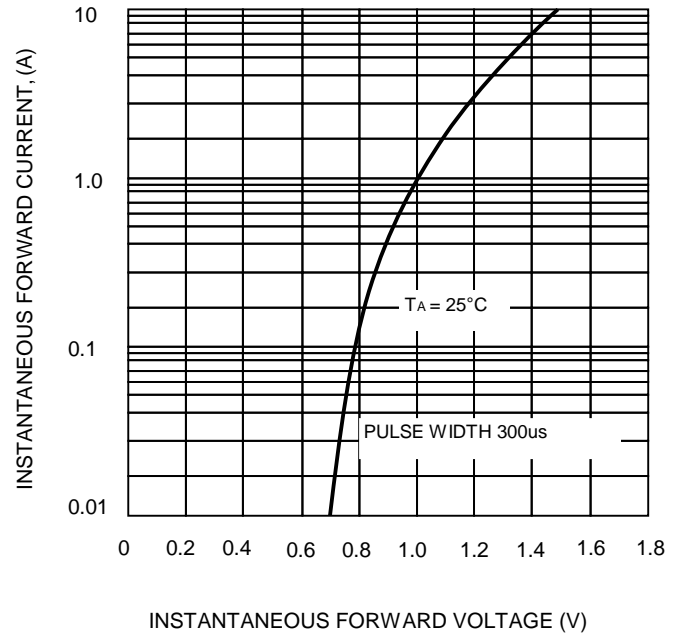


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

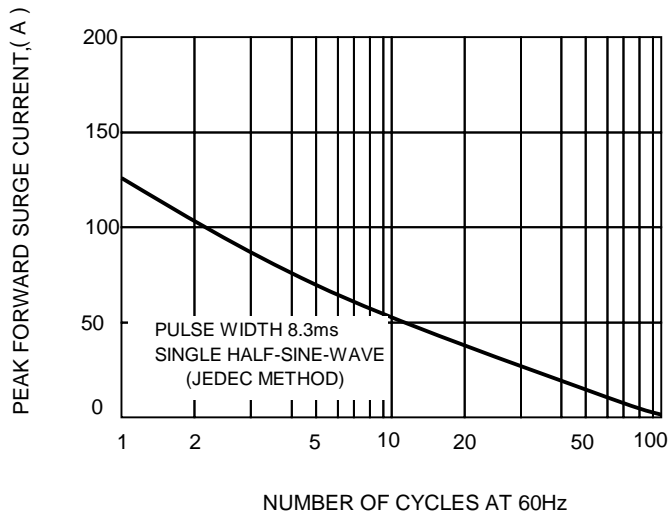


FIG.4 – TYPICAL JUNCTION CAPACITANCE

