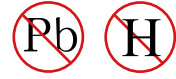




YEA SHIN TECHNOLOGY CO., LTD

FR301G THRU FR307G

FAST SWITCHING GLASS PASSIVATION RECTIFIER



VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

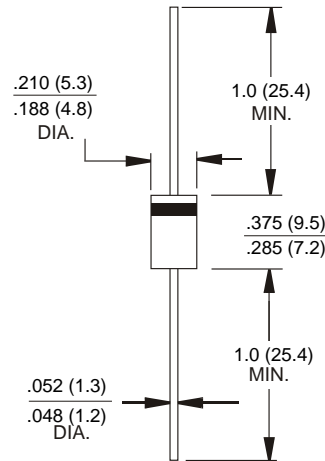
Features

- 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

DO-201AD Unit:inch(mm)



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	FR301G	FR302G	FR303G	FR304G	FR305G	FR306G	FR307G	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							μA
At Rated DC Blocking Voltage @ $T_A=125^\circ C$		100							
Typical Junction Capacitance (Note 1)	C_J	65				25			pF
Typical Thermal Resistance Junction to Ambient(Note 2)	$R_{\theta JA}$	65							$^\circ C/W$
Maximum Reverse Recovery Time(Note 3)	T_{rr}	150				250	500		ns
Operating Temperature Range	T_J	-55 to +150							$^\circ C$
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: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$

DEVICE CHARACTERISTICS

FR301G THRU FR307G

FIG. 1 – FORWARD CURRENT DERATING CURVE

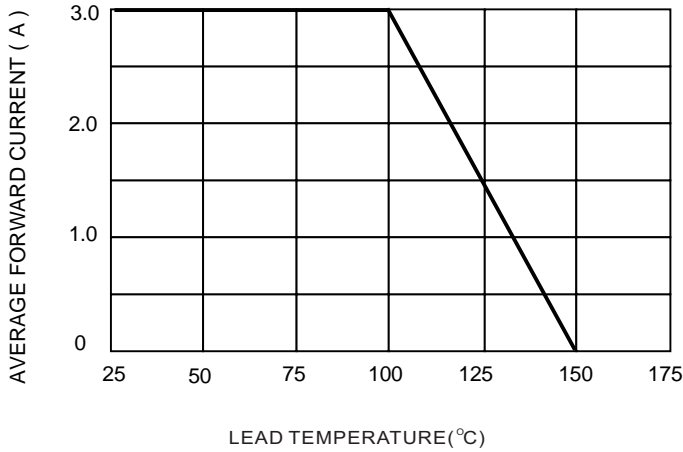


FIG.2-TYPICAL FORWARD CHARACTERISTICS

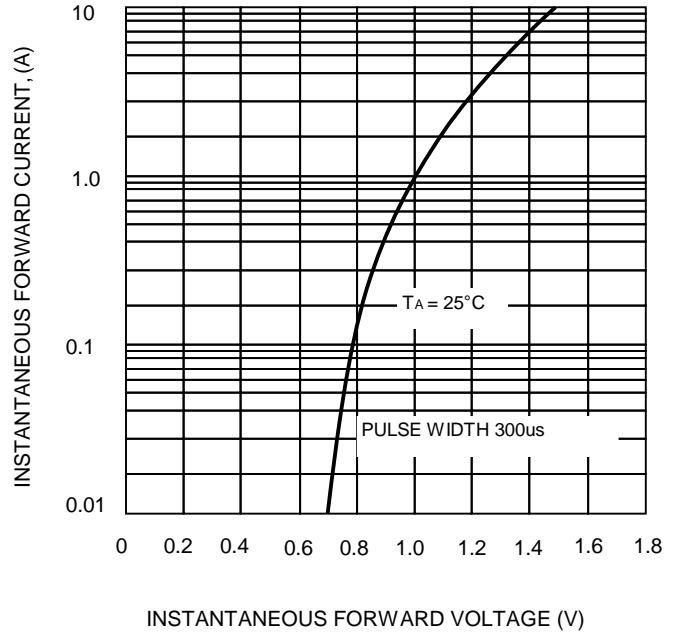


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

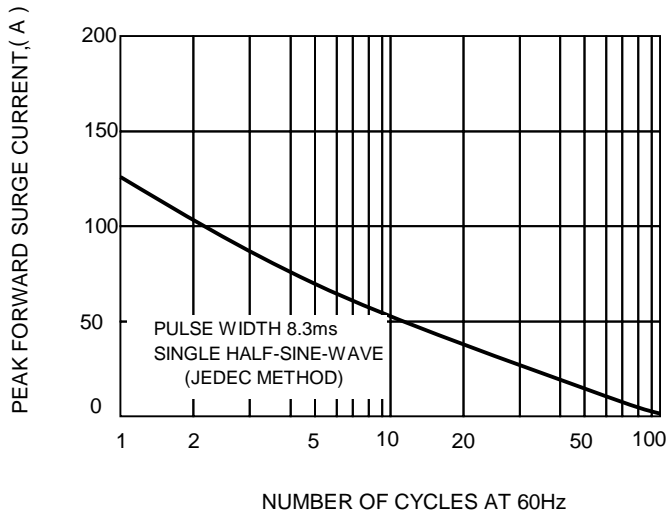


FIG.4 – TYPICAL JUNCTION CAPACITANCE

