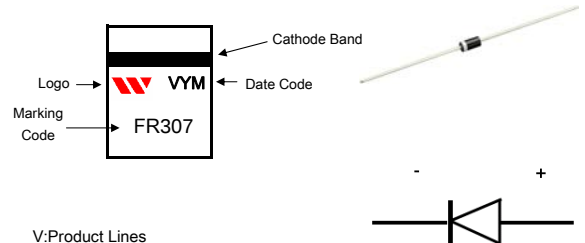


3.0A Fast Recovery Glass Passivated Rectifiers-50V~1000V

PRIMARY CHARACTERISTIC	
V_{RRM}	50V,100V,200V,400V 600V,800V,1000V
I_O	3.0A
V_F	1.3V
$T_{J,Max}$	150°C

DO-201AD PACKAGE

Marking : Part Number



V:Product Lines
Y:1-digit BC year code, 4-2014,5-2015...etc
M:Month, EX : 1-1,2-2,...10-O,11-N,12-D

FEATURES

- Fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- For Surface Mount Application
- High temperature soldering guaranteed
- Glass passivated device
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case : Molded plastic,DO-201AD
- Polarity : Shown above
- Terminals :Plated terminals, solderable per MIL-STD-750,Method 2026
- Epoxy : UL94-V0 rated flame retardant

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATINGS	SYMBOL	FR301	FR302	FR303	FR304	FR305	FR306	FR307	UNIT
Marking Code		FR301	FR302	FR303	FR304	FR305	FR306	FR307	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	480	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Average Forward Current @TA=55°C	I_O	3.0							Amps
Peak Forward Current @ 8.3 ms Half Sine	I_{FSM}	200							Amps
Typical Junction Capacitance(Note 1)	C_J	60							pF
Typical Thermal Resistance (Note 2)	R_{JA}	22							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

CHARACTERISTICS	SYMBOL	FR301	FR302	FR303	FR304	FR305	FR306	FR307	UNIT
Maximum Instantaneous Forward Voltage $T_A=25^\circ\text{C}$	V_F	1.3							Volts
Maximum DC Reverse Current $T_A=25^\circ\text{C}$	I_R	10							uAmps
Maximum Reverse Recovery Time(NOTE3)	T_{rr}	150				250	500		nSEC

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted with 0.8x0.8" (20x20mm) copper pads
- 3- Reverse Recovery Test Conditions: $I_F=.5A$, $I_R=1A$, $I_{RR}=.25A$.



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

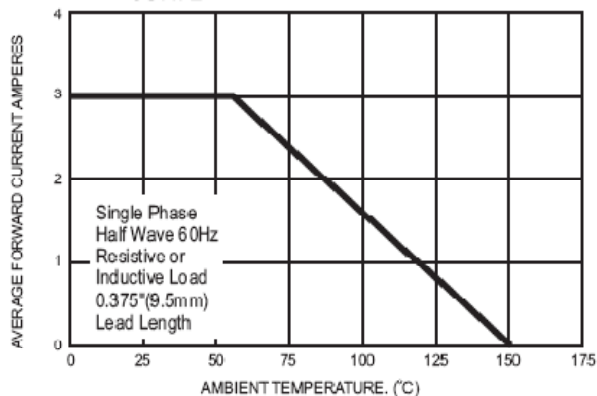


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

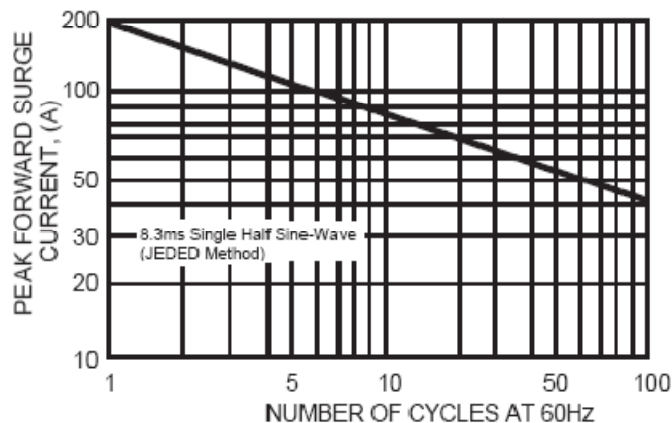


FIG.3- TYPICAL FORWARD CHARACTERISTICS

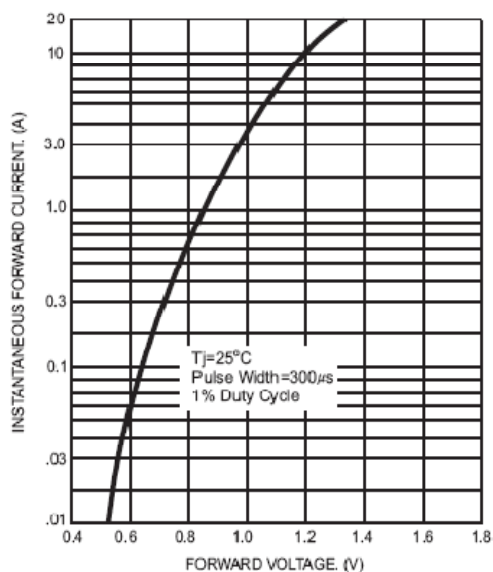


FIG.4- TYPICAL JUNCTION CAPACITANCE

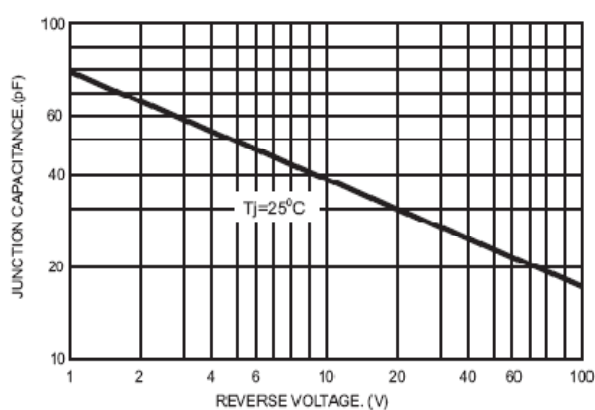
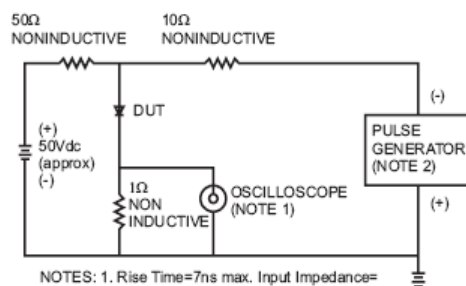
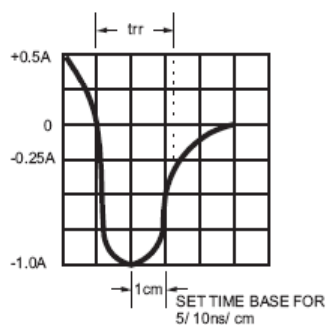


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

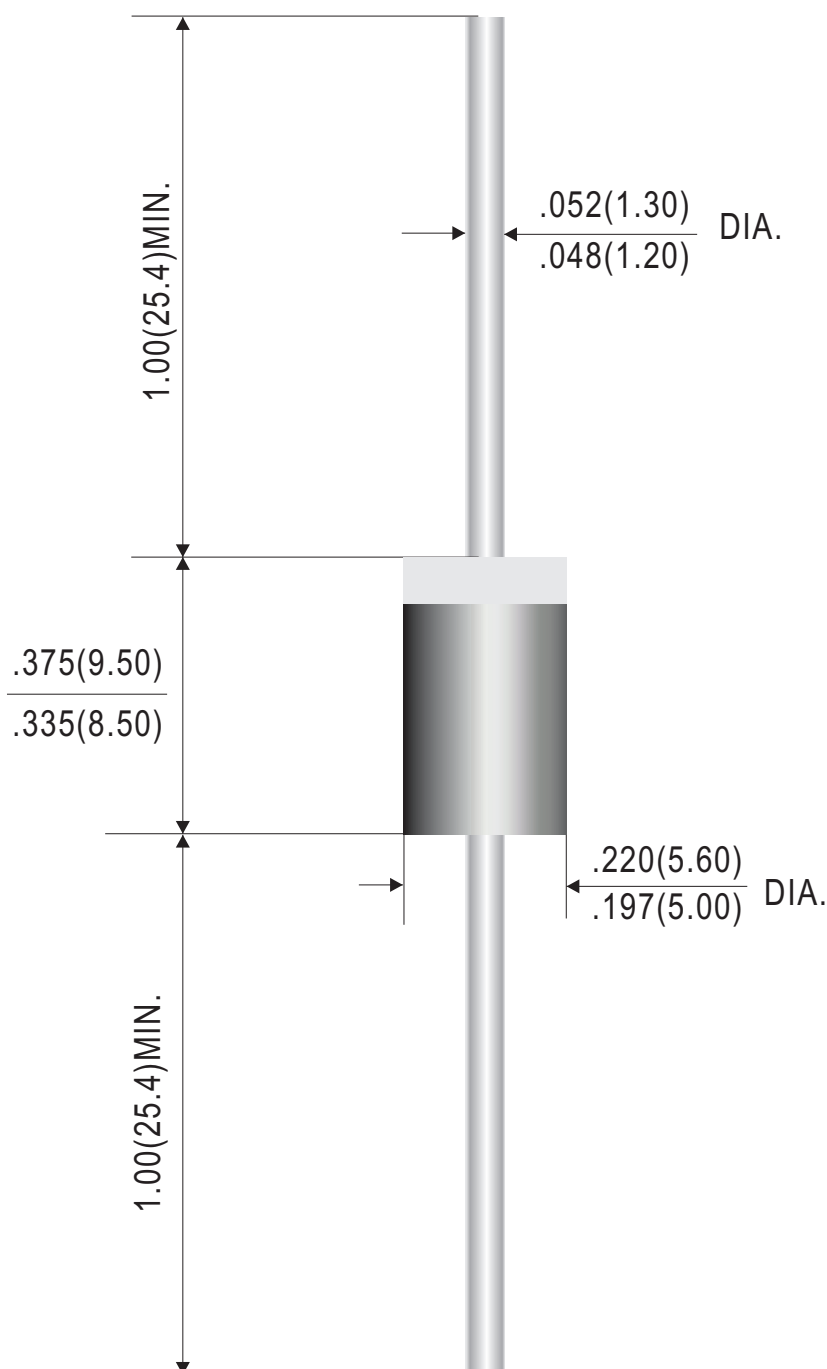


NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf
2. Rise Time=10ns max. Source Impedance=50 ohms



Outline Drawing

DO-201AD



Dimensions in inches and (millimeters)

Rev.B

3.0A Fast Recovery Glass Passivated Rectifiers-50V~1000V**Ordering Information:**

Device PN	Packing
Part Number -F ⁽¹⁾ G ⁽²⁾ -WS ⁽³⁾	Ammo Pack:1200pcs/box; 12,000pcs/Carton

Note: (1) Packing code, Tape & Ammo Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

(3) WS : Willas brand abbreviation, Label Type does not display

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