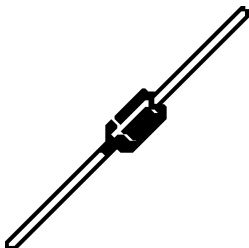


# 3.0 Amp FAST RECOVERY PLASTIC RECTIFIERS

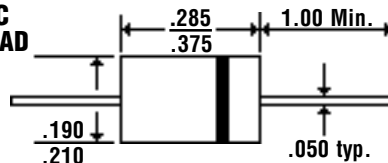
**FR30 . . . 310 Series**

## Description



## Mechanical Dimensions

JEDEC  
DO-201AD



## Features

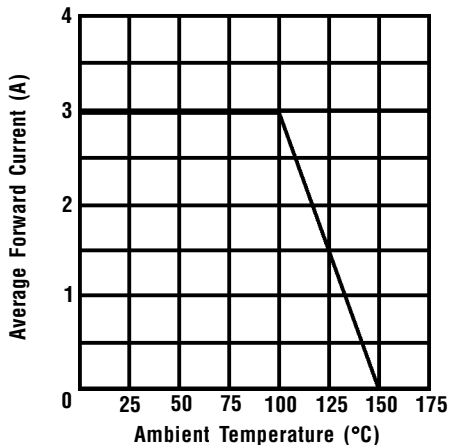
- FAST SWITCHING FOR HIGH EFFICIENCY
- 3.0 AMP OPERATION @  $T_A = 105^\circ\text{C}$ , WITH NO THERMAL RUNAWAY
- HIGH SURGE CAPABILITY
- MEETS UL SPECIFICATION 94V-0

FR30. . . 310 Series								Units
Maximum Ratings	FR30	FR31	FR32	FR34	FR36	FR38	FR310	
Peak Repetitive Reverse Voltage...V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage...V <sub>R(rms)</sub>	35	70	140	280	420	560	700	Volts
DC Blocking Voltage...V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current...I <sub>F(av)</sub> T <sub>A</sub> = 55°C				3.0				Amps
Non-Repetitive Peak Forward Surge Current...I <sub>FSM</sub> @ Rated Current & Temp				200				Amps
Operating & Storage Temperature Range...T <sub>J</sub> , T <sub>STRG</sub>				-65 to 150				°C
Electrical Characteristics								
Maximum Forward Voltage @ 3.0A...V <sub>F</sub>				1.3				Volts
Maximum DC Reverse Current...I <sub>R</sub> @ 25°C				50				μAmps
@ Rated DC Blocking Voltage @ 100°C				100				μAmps
Typical Junction Capacitance...C <sub>j</sub> (Note 1)				60				pF
Maximum Reverse Recovery Time...t <sub>RR</sub>	150	150	150	150	250	500	500	ns

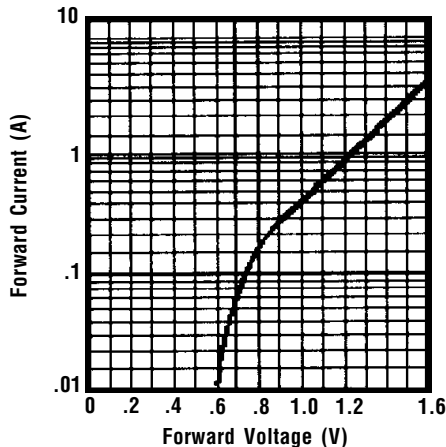
# 3.0 Amp FAST RECOVERY PLASTIC RECTIFIERS

**FR30 ... 310 Series**

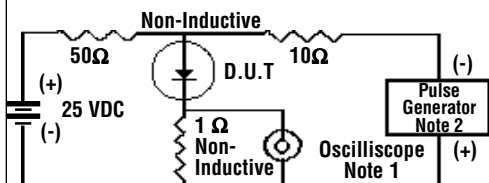
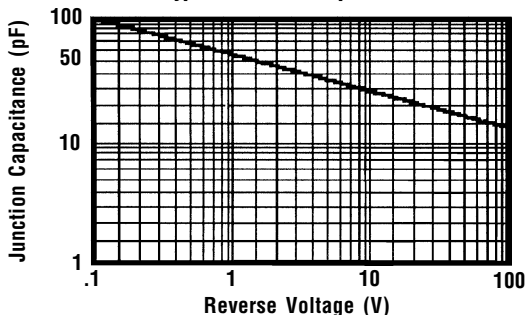
**Forward Current Derating Curve**



**Typical Instantaneous Forward Characteristics**

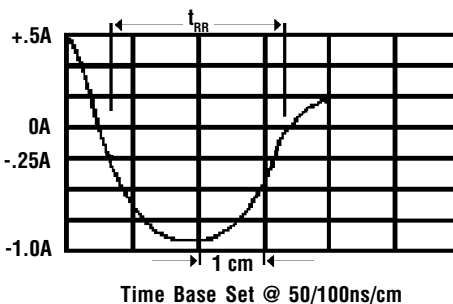


**Typical Junction Capacitance**



- Notes: 1. Rise Time = 7 ns Max.  
Impedance = 1 megohm, 22 pF  
2. Rise Time = 10 ns Max.  
Source Impedance = 50 Ohms

**Reverse Recovery Characteristics**



Ratings at  
25 Deg. C ambient  
temperature  
unless otherwise  
specified.

Single Phase Half  
Wave, 60 Hz  
Resistive or  
Inductive Load.

For Capacitive  
Load, Derate  
Current by 20%.

- NOTES:** 1. Measured @ 1 MHz and applied reverse voltage of 4.0V.  
2. Thermal Resistance Junction to Case, Jedec Method.