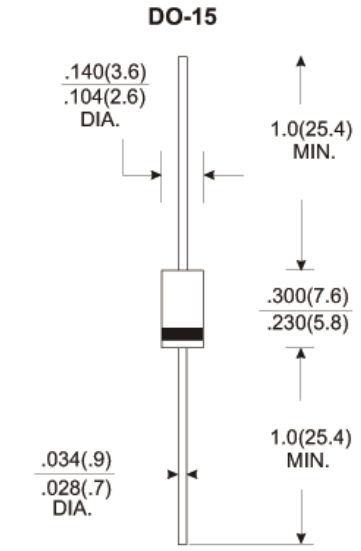
Central Plate
Electronics Co., Ltd.

Fast Recovery Rectifiers

FR201 THRU FR207 50 to 1000 V 2 A

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL- STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250℃/10 seconds/.375",(9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Mounting position: Any
- Weight: 0.39 gram

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, Resistive or inductive load. For capacitive load, derate current by 20%

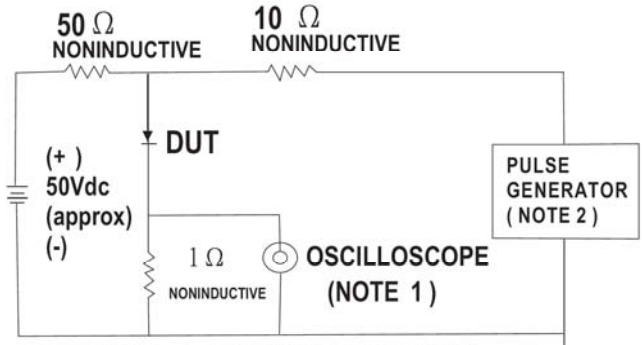
Type Number	Symbols	FR201	FR202	FR203	FR204	FR205	FR206	FR207	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current. 375" (9.5mm) Lead Length @ T_A =55 ℃	$I_{(AV)}$	2.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	55							Amp
Maximum instantaneous Forward Voltage at @2.0A	V_F	1.3							Volts
Maximum Reverse Current @ T_A=25℃ at Rated DC Blocking Voltage @ T_A=125℃	I_R	5.0 100							uAmp
Maximum Reverse Recovery Time (Note 1)	TRR	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_J	25							pF
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							℃

NOTES:

1. Reverse Recovery Test Conditions: I_F =0.5A, I_R =1.0A, I_{RR} =0.25A
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES (FR201GTHRU FR207)

FIG . 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1 . RISE TIME = 7nsmax. INPUT IMPEDANCE= 1 MEGOHM 22pf
2 . RISETIME = 10ns max.SOURSE IMPEDANCE = 50ohmsf

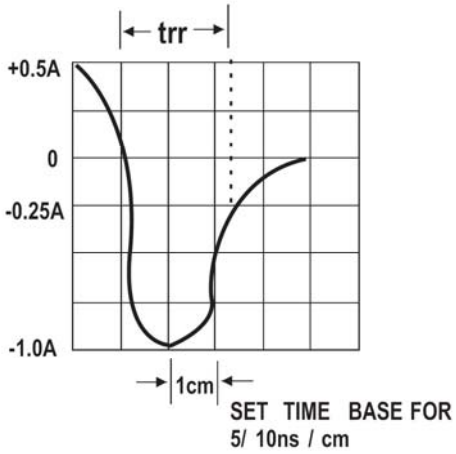


FIG . 2 -TYPICAL JUNCTION CAPACITANCE

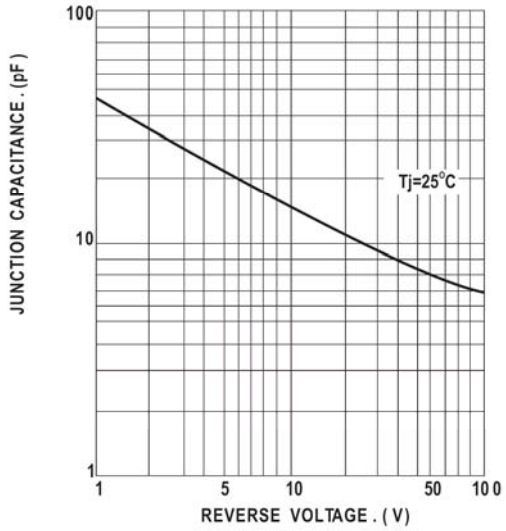


Fig. 4 - FORWARD CURRENT DERATING CURVE

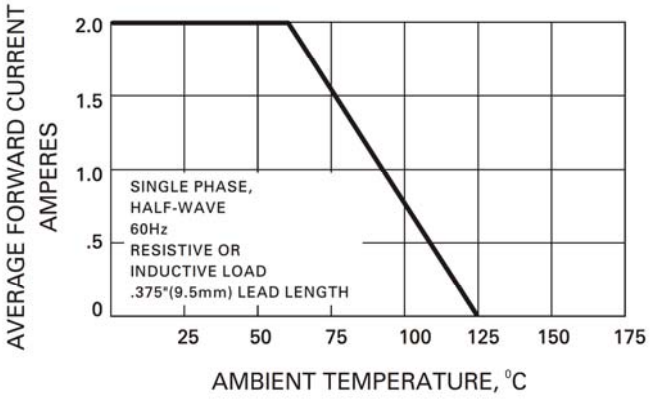


FIG . 3 -TYPICAL FORWARD CHARACTERISTICS

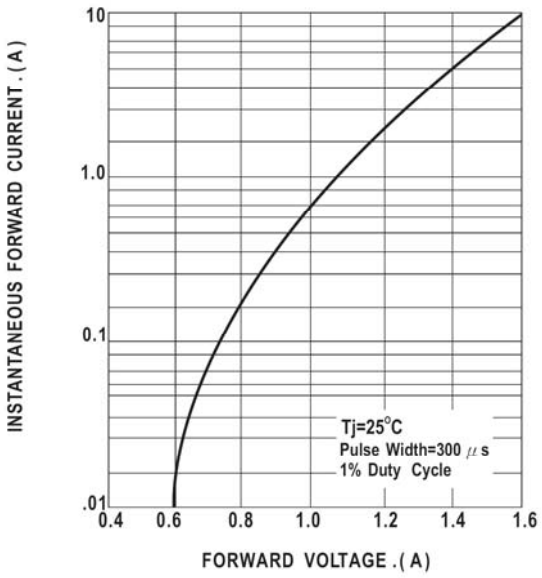


FIG . 5 -MAXIMUM NON - REPETITIVE PEAK FORWARD SURGE CURRENT