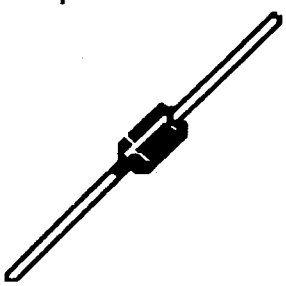
Semiconductor

Data Sheet

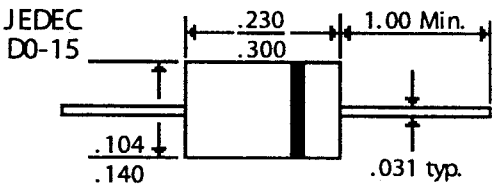
1.5 Amp FAST RECOVERY Glass Passivated Rectifiers

FR150G . . . 1510G Series

Description



Mechanical Dimensions



Features

- n FAST SWITCHING FOR HIGH EFFICIENCY
- n HIGH SURGE CAPABILITY
- n 1.5 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY
- n MEETS UL SPECIFICATION 94V-0

	FR150 . . . 1510 Series							Units
Maximum Ratings	FR150	FR151	FR152	FR154	FR156	FR158	FR1510	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	35	70	140	280	420	560	700	Volts
DC Blocking Voltage...V_{DC}	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$ T_A = 55°C	..... 1.5							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} @ Rated Current & Temp	..... 50							Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	..... -65 to 150							°C
Electrical Characteristics								
Maximum Forward Voltage @ 1.5A...V_F	..... 1.3							Volts
Maximum DC Reverse Current...I_R @ 25°C	..... 5.0							µAmps
@ Rated DC Blocking Voltage @ 100°C	..... 100							µAmps
Typical Junction Capacitance...C_J (Note 1)	..... 30							pF
Maximum Reverse Recovery Time...t_{RR}	150	150	150	150	250	500	500	ns

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Fig. 1 FORWARD CURRENT DERATING CURVE

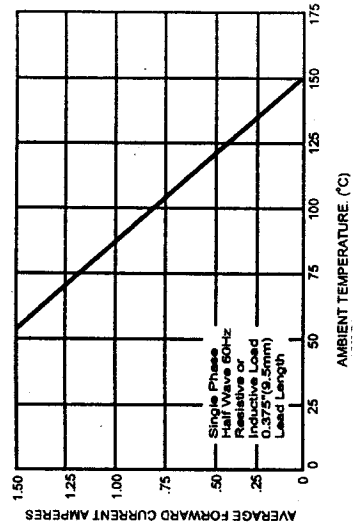


Fig. 2 TYPICAL FWD CHARACTERISTICS, PER ELEM

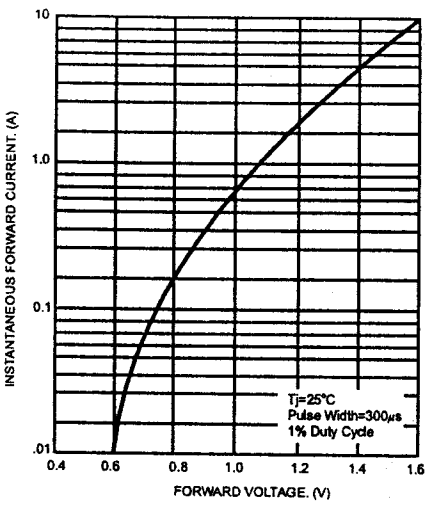


Fig. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

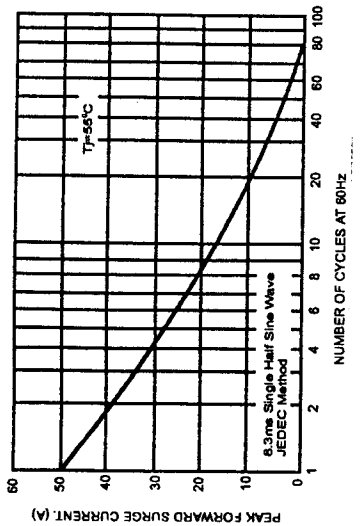
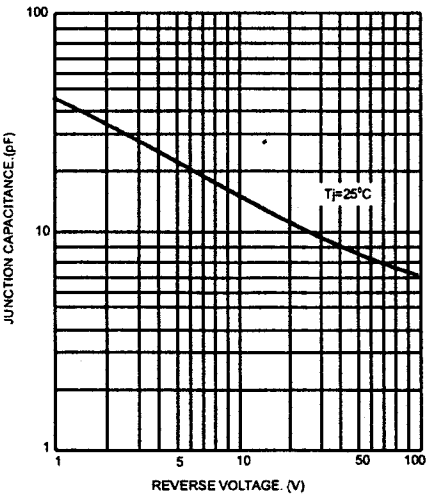


Fig. 4 TYPICAL JUNCTION CAPACITANCE



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. THERMAL RESISTANCE JUNCTION TO AMBIENT, MOUNTED ON PCB AT 9.5MM LEADD LENGTH.
2. Thermal resistance from junction to ambient and junction to lead mounted on PCB with 5"x 4"x 0.8cm THICK ALL PLATE HEATSINK.