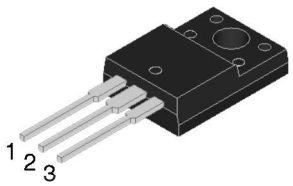
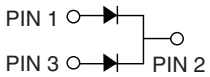
Isolated 5.0 Amp. Glass Passivated Fast Recovery Rectifiers

ITO-220AB





Voltage	Current
200 to 1000 V	5.0 A

- Glass passivated chip junction.
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss

MECHANICAL DATA

- Case: ITO-220AB Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plated, Lead free. Leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- High temperature soldering guaranteed: 260 °C/10 seconds/6.35mm from case.
- Mounting position: Any
- Weight: 2.24 grams
- Mounting torque: 5 in - 1bs. max.

Absolute Maximum Ratings, according to IEC publication No. 134

		FRF 503G	FRF 504G	FRF 505G	FRF 506G	FRF 507G
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600	800	1000
$I_{F(AV)}$	Maximum Average Forward Rectified Current See Fig.	5.0 A				
I_{FSM}	Peak Forward Surge Current 8.3 ms. single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	30 A				
T_{rr}	Maximum Reverse Recovery Time From I_F =0.5 A; I_R = 1 A; I_{RR} = 0.25 A	150 nS		250 nS	500 nS	
C_j	Typical Junction Capacitance at 1MHz and reverse voltage of 4V_{DC}	140 pF				
T_j,T_{stg}	Operating and Storage Temperature Range	– 65 to + 150 °C				

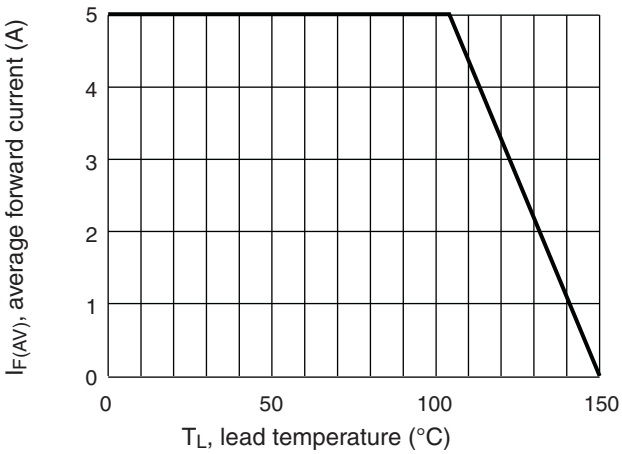
Electrical Characteristics

		FRF 503G	FRF 504G	FRF 505G	FRF 506G	FRF 507G
V_F	Max. Instantaneous Forward Voltage @ 2.5 A	1.5 V				
I_R	Maximum DC Reverse Current @ T_c = 25 °C at Rated DC Blocking Voltage @ T_c = 125 °C	5.0 µA 100 µA				
R_{thj-C}	Typical Thermal Resistance (Note 1)	4.0 °C/W				

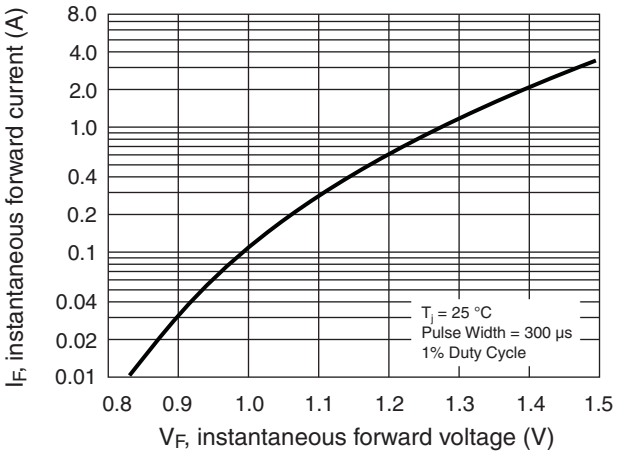
Note: 1. Thermal Resistance from Junction to case Per Leg Mounted on Heatsink Size of 50.8 mm x 76.2 mm x 6.35 mm Al-Plate.

Rating And Characteristic Curves

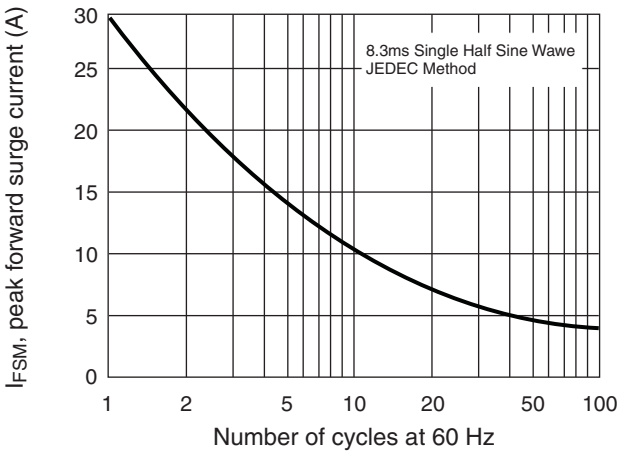
MAXIMUM FORWARD CURRENT DERATING CURVE



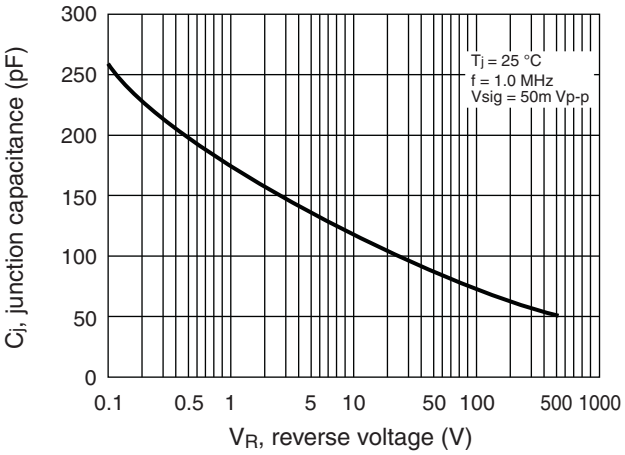
TYPICAL FORWARD CHARACTERISTICS PER LEG



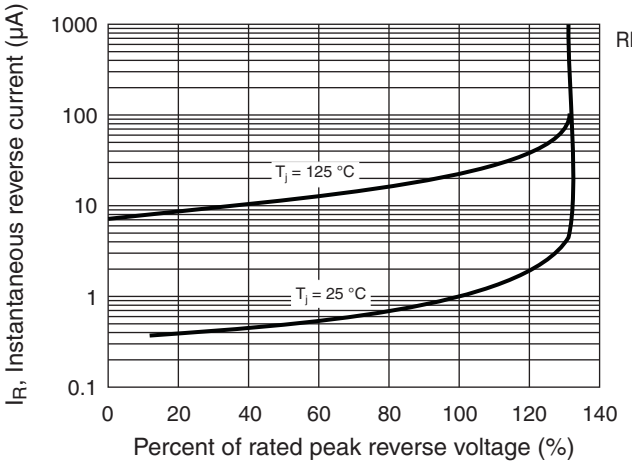
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG



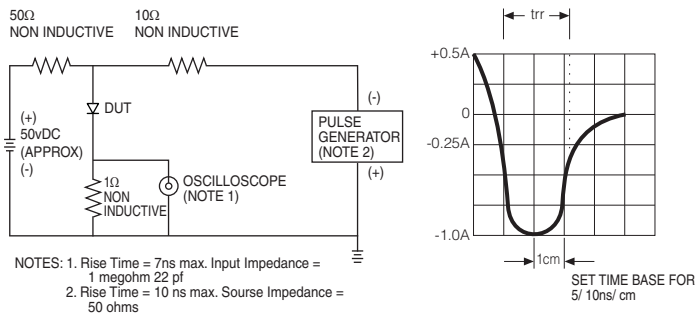
TYPICAL JUNCTION CAPACITANCE PER LEG



TYPICAL REVERSE CHARACTERISTICS PER LEG



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

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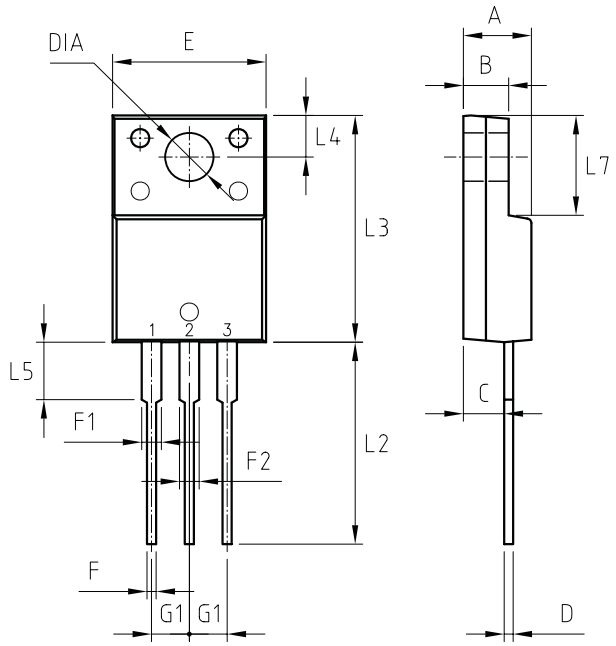
PACKAGE MECHANICAL DATA ITO-220AB



REF.	DIMENSIONS Milimeters		
	Min.	Nominal	Max.
A	-	-	4.7
B	-	-	3.16
C	2.5	-	2.8
D	-	-	0.76
E	-	-	10.3
F	-	-	0.9
F1	-	-	1.4
F2	-	-	1.8
G1	-	2.55	-
L2	13.2	-	13.8
L3	14.8	-	15.5
L4	2.55	-	2.85
L5	-	-	4.1
L7	6.3	-	6.9
DIA	3.0	-	3.4