

## 12 Amps Glass Passivated Fast Recovery Rectifiers

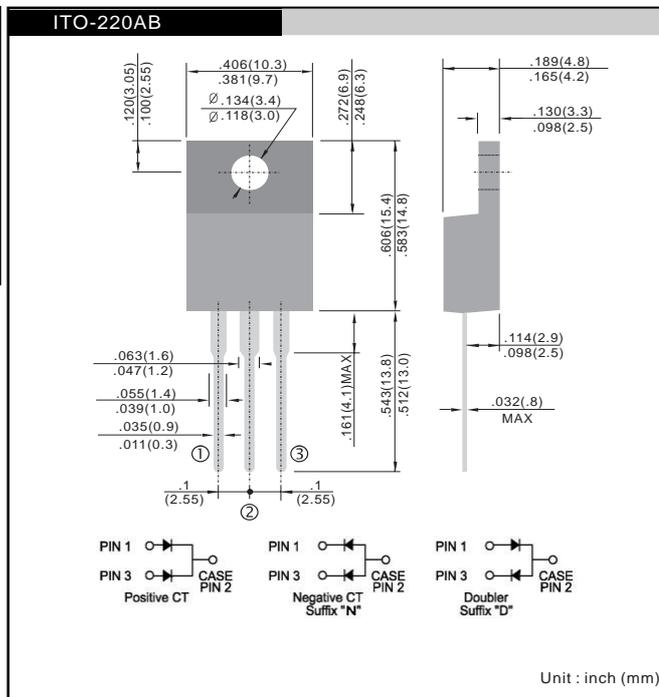
RoHS compliant

### Features

- ✧ 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 .16", (4.06mm) from case.
- ✧ Mounting position: Any
- ✧ Weight: 2.24 grams

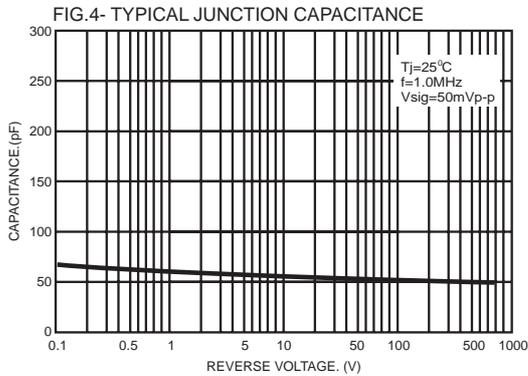
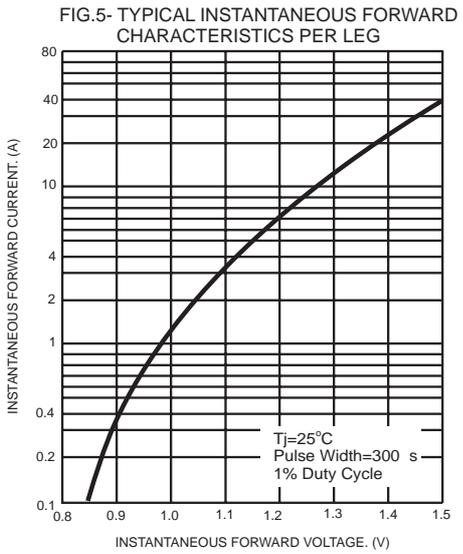
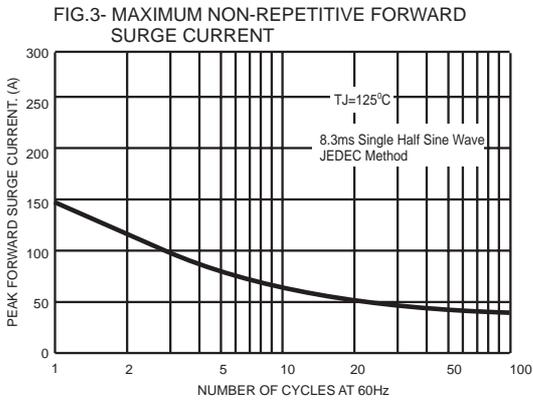
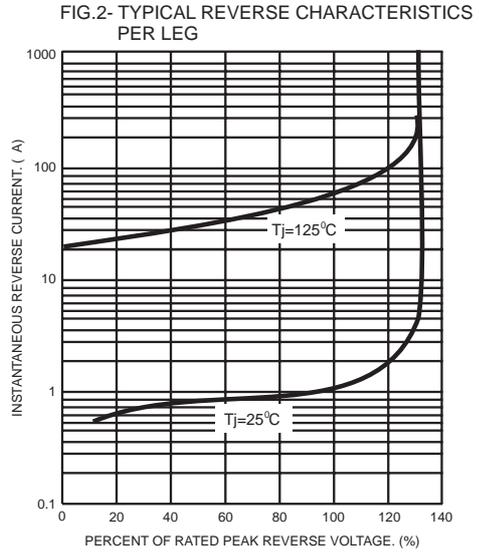
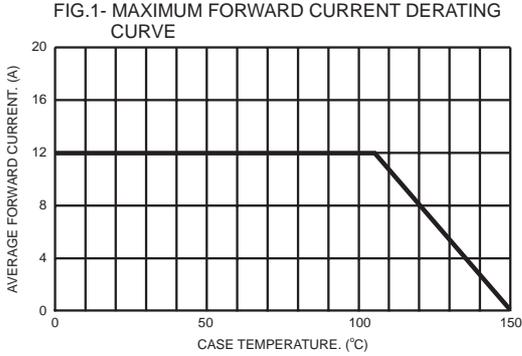


### Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	FRF 1201	FRF 1202	FRF 1203	FRF 1204	FRF 1205	FRF 1206	FRF 1207	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	12							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150							A
Maximum Instantaneous Forward Voltage @6.0A	$V_F$	1.3							V
Maximum DC Reverse Current @ $T_C=25^\circ C$ at Rated DC Blocking Voltage @ $T_C=125^\circ C$	$I_R$	5.0 100							uA uA
Maximum Reverse Recovery Time ( Note 1)	$T_{rr}$	150			250		500		nS
Typical Junction Capacitance (Note 3)	$C_j$	60							pF
Typical Thermal Resistance $R_{\theta JC}$ (Note 2)	$R_{\theta JC}$	3.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150							°C

- Notes:
1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
  2. Thermal Resistance from Junction to Case Per Leg Mounted on Heatsink Size 2" x 3" x 0.25" Al-Plate.
  3. Measured at 1MHz and Applied Reverse Voltage of 4.0 Volts D.C.



**FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

