SENSITRON
SEMICONDUCTOR

ER1000FCT–ER1006FCT

10A ISOLATION SUPER-FAST GLASS PASSIVATED RECTIFIER

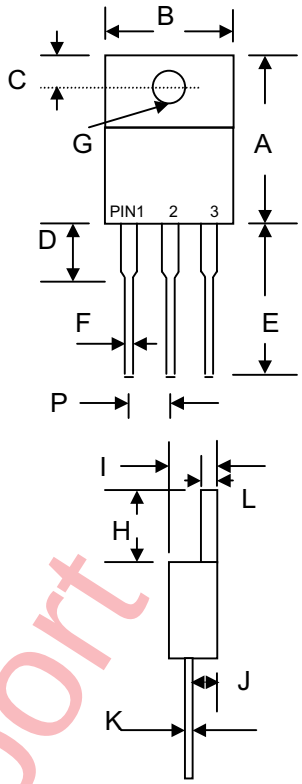
Data Sheet 2612, Rev.A

Features

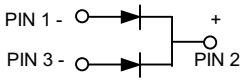
- Glass Passivated Die Construction
- Super-Fast Switching for High Efficiency
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: ITO-220 Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



ITO-220				
Dim	**Min**	**Max**	**Min**	**Max**
A	14.9	15.1	0.587	0.594
B	—	10.5	—	0.413
C	2.62	2.87	0.103	0.113
D	3.56	4.06	0.140	0.160
E	13.46	14.22	0.530	0.560
F	0.68	0.94	0.027	0.037
G	3.74 Ø	3.91 Ø	0.147 Ø	0.154 Ø
H	5.84	6.86	0.230	0.270
I	4.44	4.70	0.175	0.185
J	2.54	2.79	0.10	0.110
K	0.35	0.64	0.014	0.025
L	2.9	3.3	0.114	0.130
P	2.41	2.67	0.095	0.105
	In mm		**In inch**	



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	ER 1000FCT	ER 1001FCT	ER 1001AFCT	ER 1002FCT	ER 1003FCT	ER 1004FCT	ER 1006FCT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Average Rectified Output Current @T_C = 100°C	I_O	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Forward Voltage @I_F = 5.0A	V_{FM}	0.95				1.3		1.7	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	10 400							μA
Reverse Recovery Time (Note 1)	t_{rr}	35				50			nS
Typical Junction Capacitance (Note 2)	C_j	70				50			pF
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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Data Sheet 2612, Rev.A

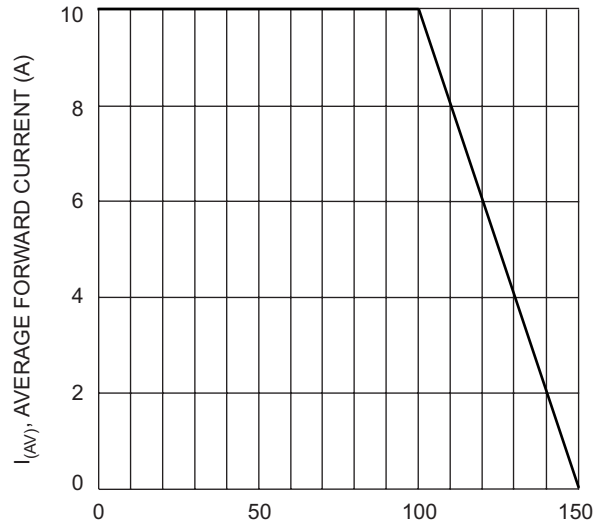

Fig. 1 Forward Current Derating Curve

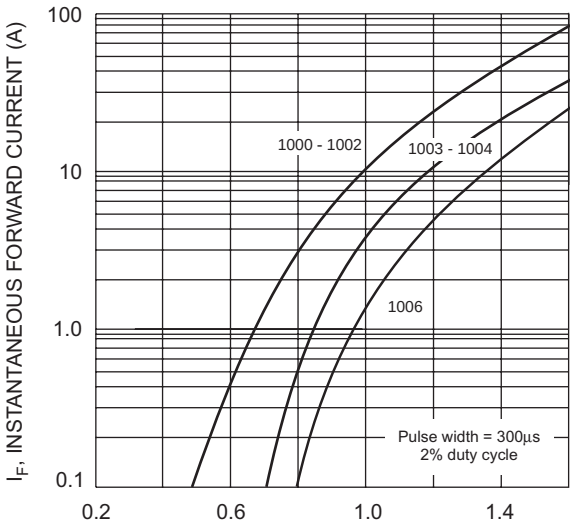

Fig. 2 Typical Forward Characteristics

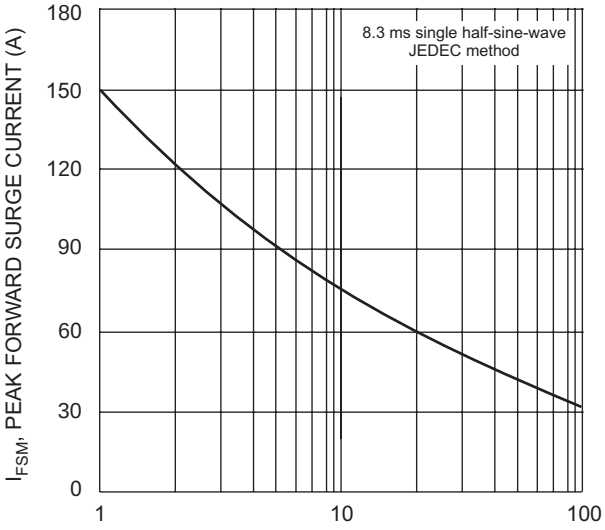

Fig. 3 Max Non-Repetitive Surge Current

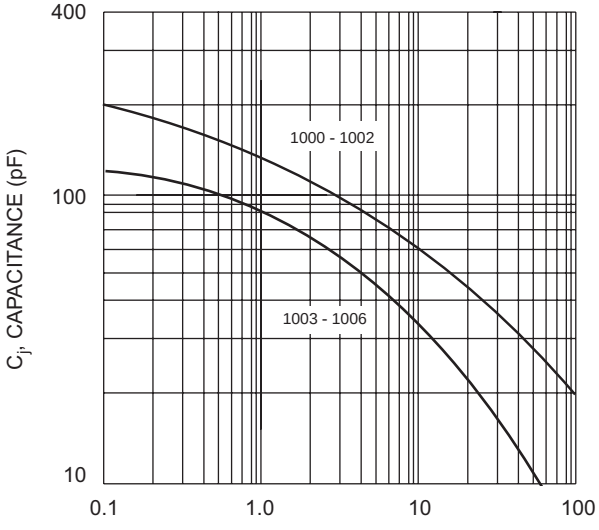

Fig. 4 Typical Junction Capacitance

Data Sheet 2612, Rev.A