SENSITRON

SEMICONDUCTOR

FEP16AT-FEP16JT

16A SUPER-FAST GLASS PASSIVATED RECTIFIER

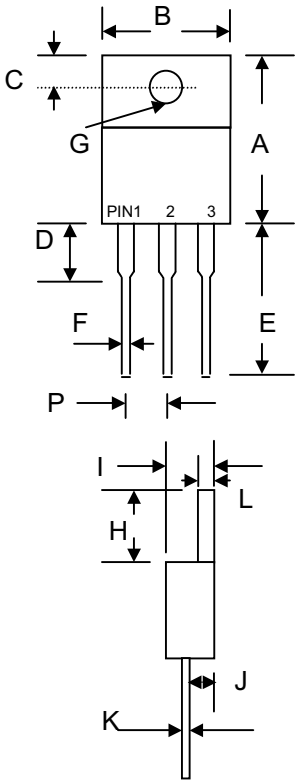
Data Sheet 2656 Rev.—

Features

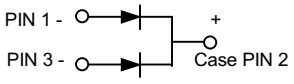
- Glass Passivated Die Construction
- Super-Fast Switching for High Efficiency
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: 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



TO-220		
Dim	**Min**	**Max**
A	0.587(14.9)	0.595(15.10)
B	—	0.413(10.50)
C	0.103(2.62)	0.113(2.87)
D	0.140(3.56)	0.160(4.06)
E	0.530(13.46)	0.560(14.22)
F	0.027(0.68)	0.037(0.94)
G	0.147(3.74) Ø	0.154(3.91) Ø
H	0.230(5.84)	0.270(6.86)
I	0.175(4.44)	0.185(4.70)
J	0.100(2.54)	0.110(2.79)
K	0.014(0.35)	0.025(0.64)
L	0.045(1.14)	0/055(1.40)
P	0.095(2.41)	0.105(2.67)
All Dimensions in inch(mm)		



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	FEP 16AT	FEP 16BT	FEP 16CT	FEP 16DT	FEP 16FT	FEP 16GT	FEP 16JT	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 = 105°C	I_O	16							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125							A
Forward Voltage @I_F = 8.0A	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}	10 500							μA
Reverse Recovery Time (Note 1)	t_{rr}	35				50			nS
Typical Junction Capacitance (Note 2)	C_j	80				60			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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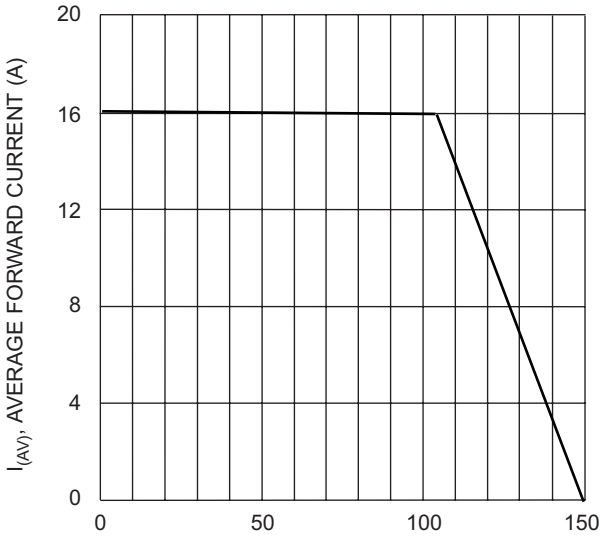


Fig. 1 Forward Current Derating Curve

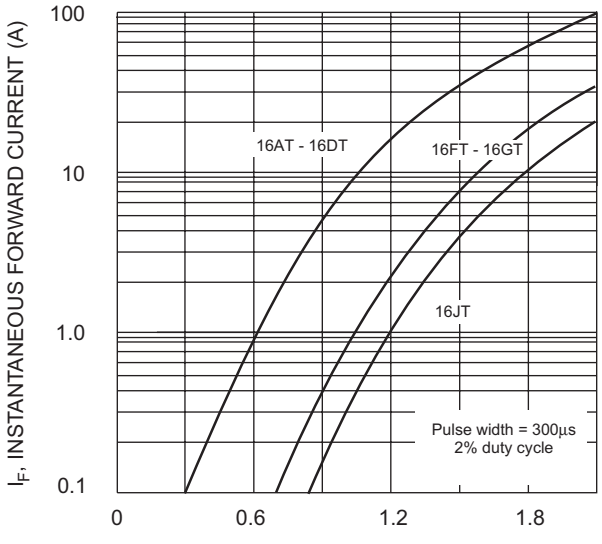


Fig. 2 Typical Forward Characteristics

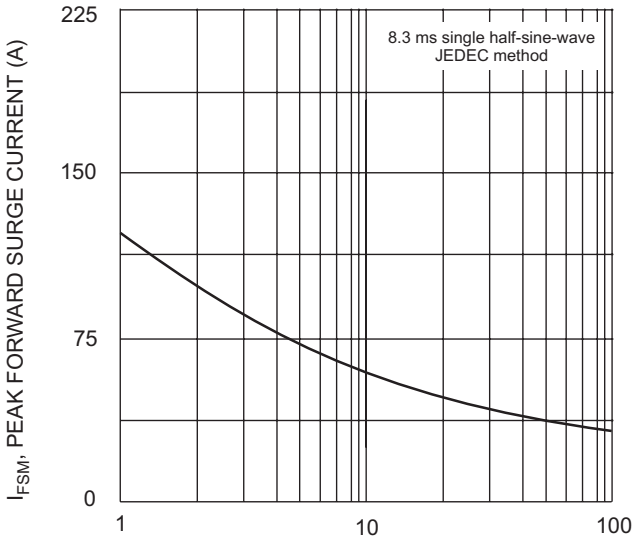


Fig. 3 Maximum Non-Repetitive Surge Current

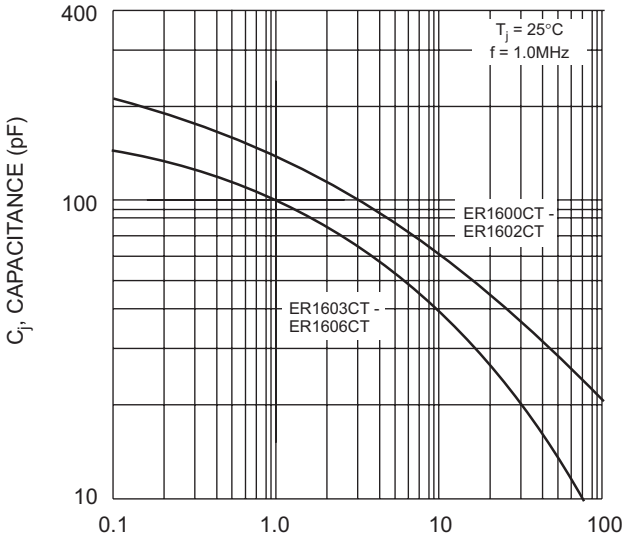
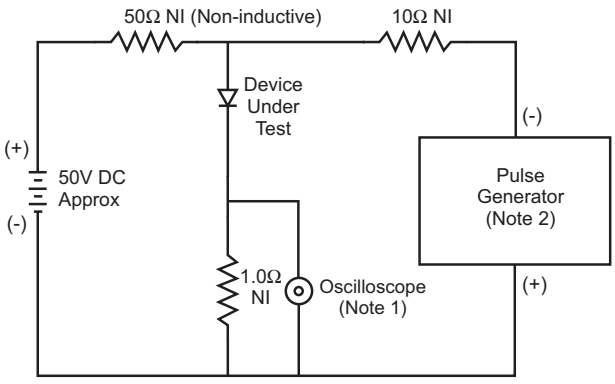


Fig. 4 Typical Junction Capacitance



Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

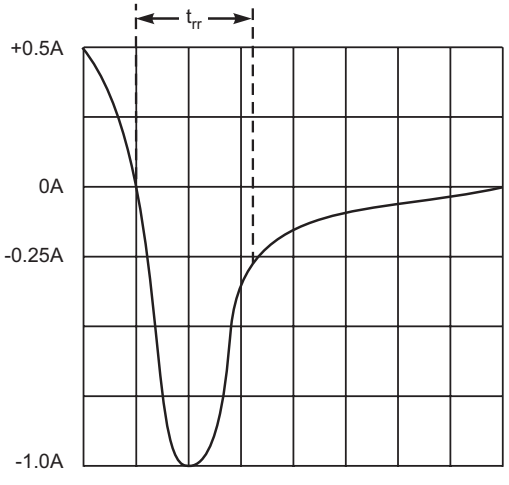


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

TECHNICAL DATA

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