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FR801 - FR805

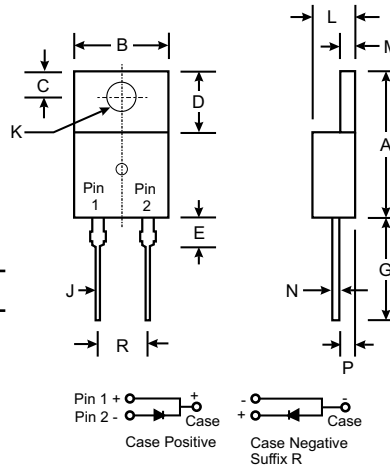
8.0A FAST RECOVERY RECTIFIER

Features

- Low Reverse Recovery Time
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Surge Capability
- Plastic Material - UL Flammability Rating 94V-0
- High Reliability

Mechanical Data

- Case: TO-220A, Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram at Right
- Approx. Weight: 2.24 grams
- Mounting Position: Any



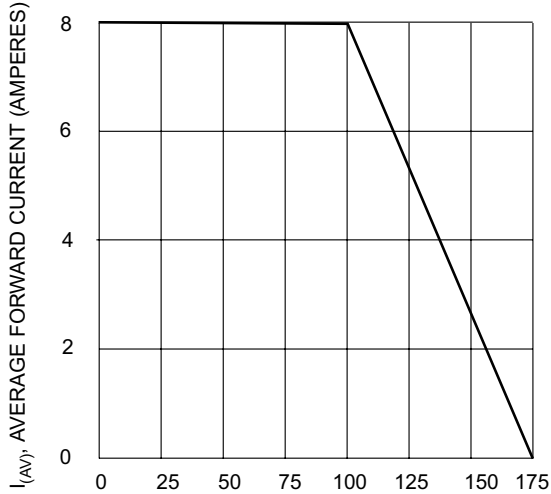
TO-220A		
Dim	Min	Max
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	—	6.25
G	12.70	14.73
H	2.29	2.79
J	0.51	1.14
K	3.53Ø	4.09Ø
L	3.56	4.83
M	1.14	1.40
N	0.30	0.64
P	2.03	2.92
R	4.83	5.33
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

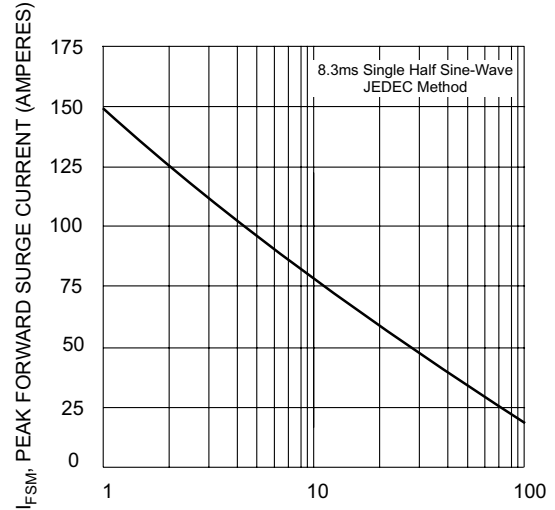
Ratings at 25° C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	FR801	FR802	FR803	FR804	FR805	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	V
Maximum DC Blocking voltage	V _{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length @ T _C = 100°C	I _(AV)	8.0					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150					A
Maximum Instantaneous Forward Voltage @ 8.0A DC	V _F	1.3					V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T _A = 25°C	I _R	10					µA
Maximum Full Load Reverse Current Full Cycle @ T _C = 100°C	I _R	150					µA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150			250		ns
Typical Junction Capacitance (Note 2)	C _J	70					pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175					°C

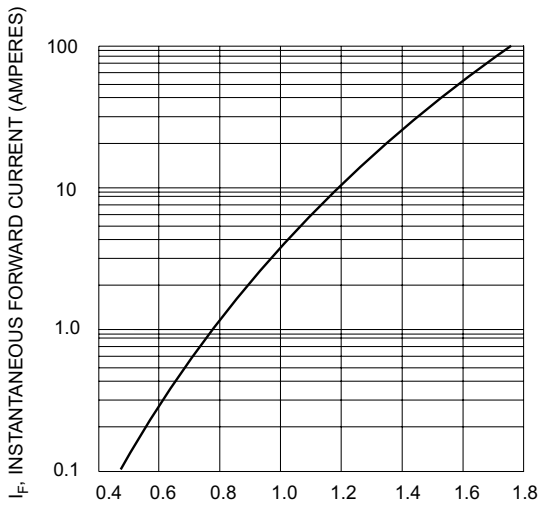
Notes: 1. Reverse Recovery Test Conditions: I_F = 0.5 A, I_R = 1.0 A, I_{RR} = 0.25 A
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V.



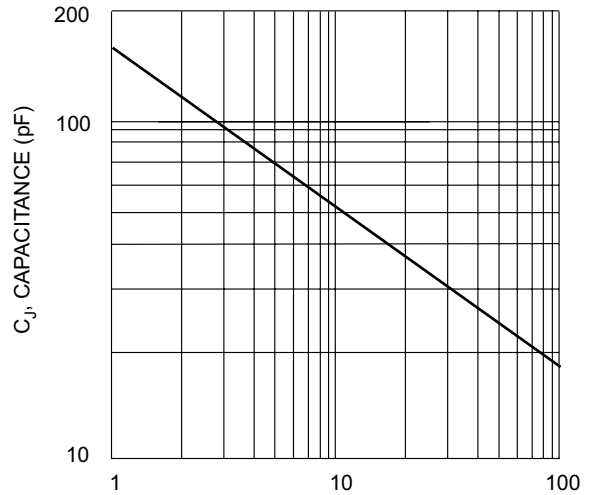
T_C, CASE TEMPERATURE (°C)
Fig. 1, Forward Current Derating Curve



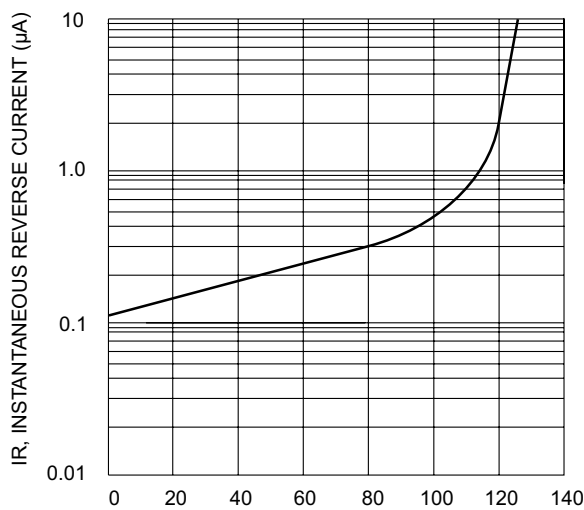
NUMBER OF CYCLES AT 60 Hz
Fig. 2, Maximum Non-Repetitive Surge Current



V_F, INSTANTANEOUS FORWARD VOLTAGE (VOLTS)
Fig. 3, Typical Instantaneous Forward Characteristics



V_R, REVERSE VOLTAGE (VOLTS)
Fig. 4, Typical Junction Capacitance



PERCENT OF RATED PEAK REVERSE VOLTAGE
Fig. 5, Typical Reverse Characteristics