



THE DATASHEET OF FR805

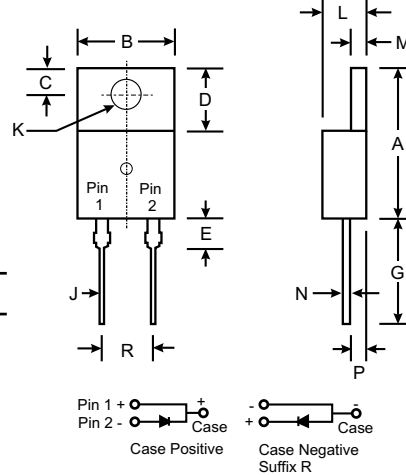


Features

- 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



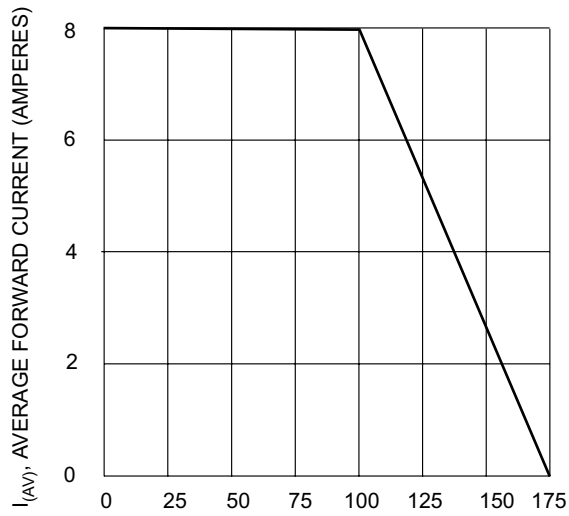
TO-220A		
Dim	Min	Max
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	—	6.25
G	12.70	14.73
H	2.29	2.79
J	0.51	1.14
K	3.53Ø	4.09Ø
L	3.56	4.83
M	1.14	1.40
N	0.30	0.64
P	2.03	2.92
R	4.83	5.33
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

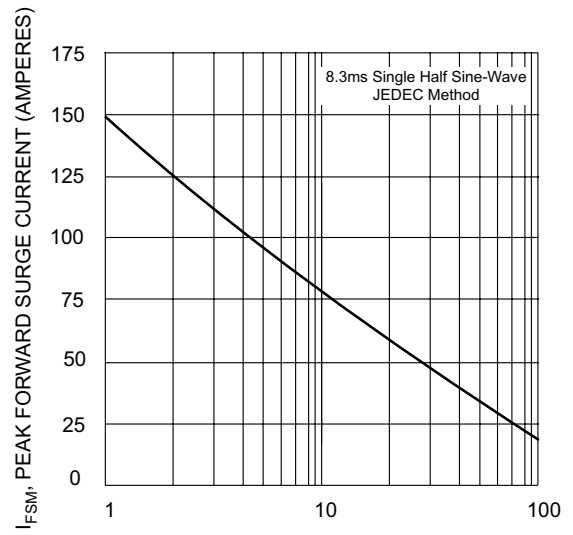
Ratings at 25° C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	FR801	FR802	FR803	FR804	FR805	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length @ TC = 100°C	IAV	8.0					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150					A
Maximum Instantaneous Forward Voltage @ 8.0A DC	VF	1.3					V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ TA = 25°C	IR	10					µA
Maximum Full Load Reverse Current Full Cycle @ TC = 100°C	IR	150					µA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	ns
Typical Junction Capacitance (Note 2)	CJ	70					pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to +175					°C

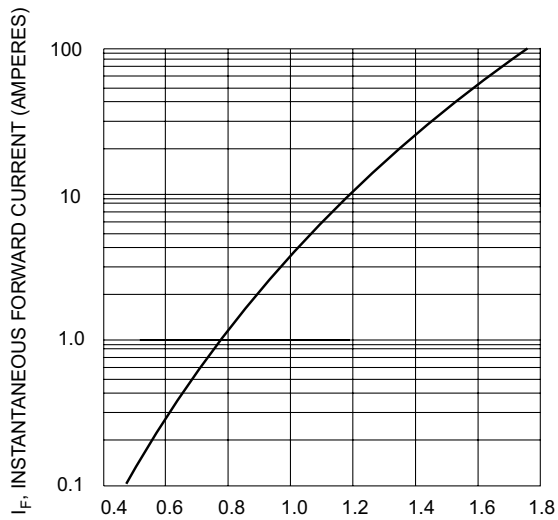
Notes: 1. Reverse Recovery Test Conditions: IF = 0.5 A, IR = 1.0 A, IRR = 0.25 A
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.



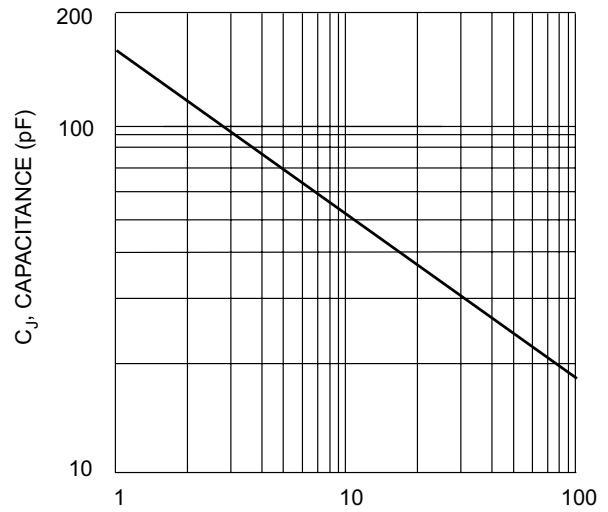
T_C , CASE TEMPERATURE (°C)
Fig. 1, Forward Current Derating Curve



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

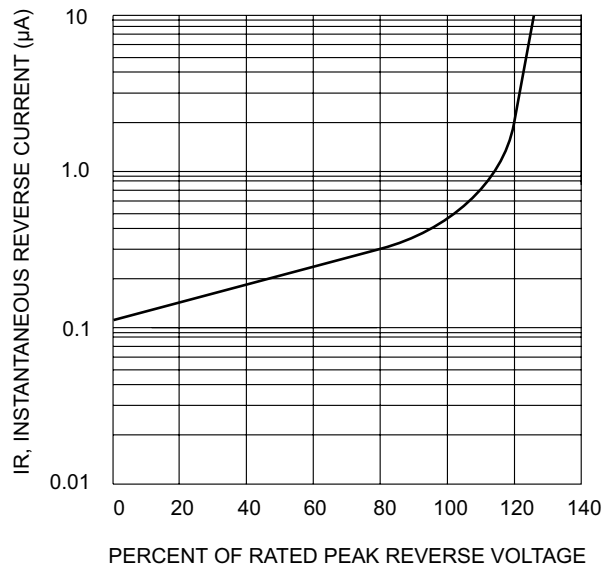




Fig. 5, Typical Reverse Characteristics

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