

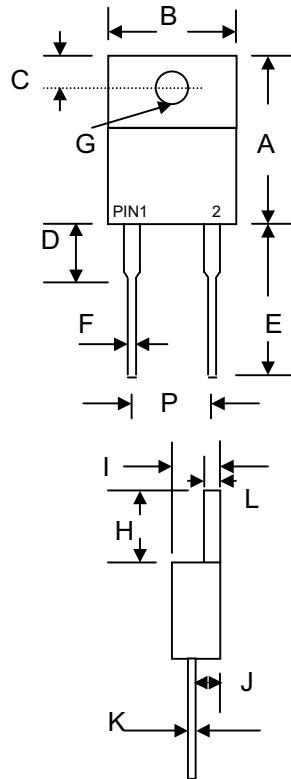
**Data Sheet 2711, Rev.-**

**Features**

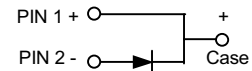
- Glass Passivated Die Construction
- Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

**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-220A				
Dim	Min	Max	Min	Max
A	14.9	15.10	0.587	0.595
B	—	10.50	—	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 $\phi$	3.91 $\phi$	0.147 $\phi$	0.154 $\phi$
H	5.84	6.86	0.230	0.270
I	4.44	4.70	0.175	0.185
J	2.54	2.79	0.100	0.110
K	0.35	0.64	0.014	0.025
L	1.14	1.40	0.045	0.055
P	4.95	5.20	0.195	0.205
	In mm		In inch	



**Maximum Ratings and Electrical Characteristics** @ $T_A=25^\circ\text{C}$  unless otherwise specified

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

Characteristic	Symbol	FR 801G	FR 802G	FR 803G	FR 804G	FR 805G	FR 806G	FR 807G	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_C = 100^\circ\text{C}$	$I_O$	8.0							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 @ $I_F = 8.0\text{A}$	$V_{FM}$	1.3							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_{RM}$	5.0 100							$\mu\text{A}$
Reverse Recovery Time (Note 1)	$t_{rr}$	150			250	500		nS	
Typical Junction Capacitance (Note 2)	$C_j$	100							pF
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	3.0							K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150							$^\circ\text{C}$

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

Data Sheet 2711, Rev. -

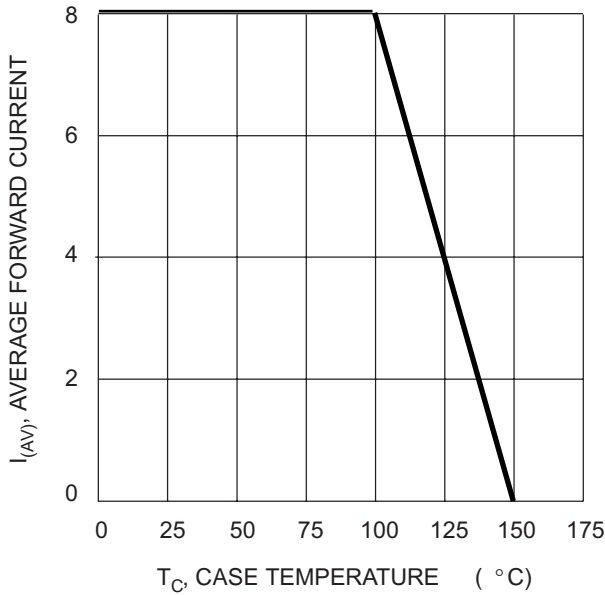


Fig. 1, Typical Forward Current Derating Curve

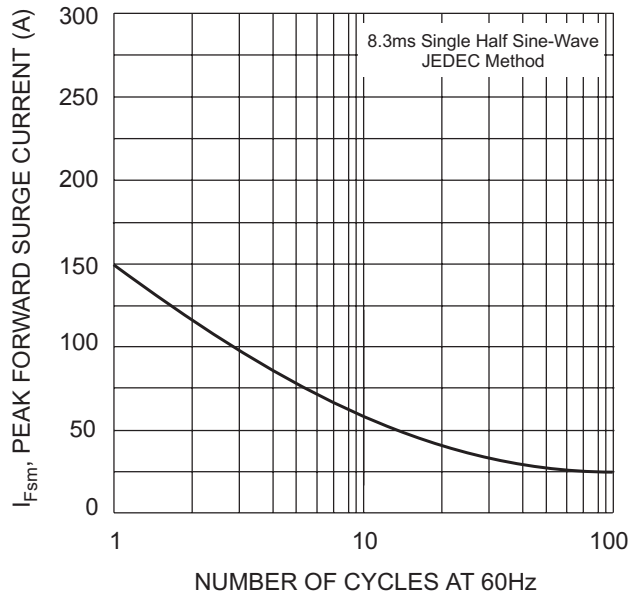


Fig. 2 Max Non-Repetitive Peak Surge Current

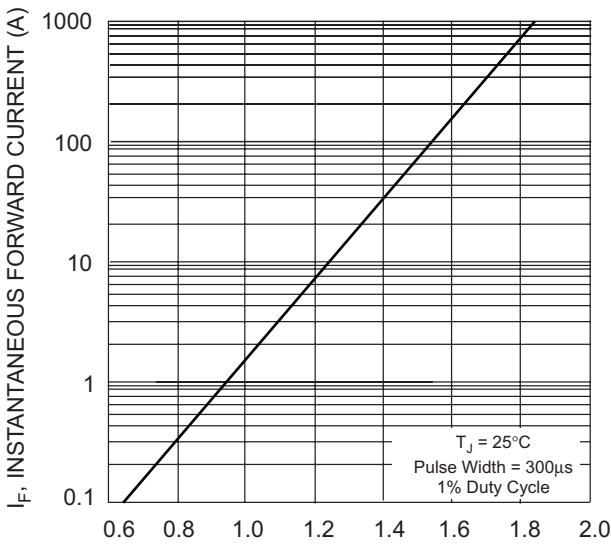


Fig. 3, Typical Instantaneous Forward Characteristics

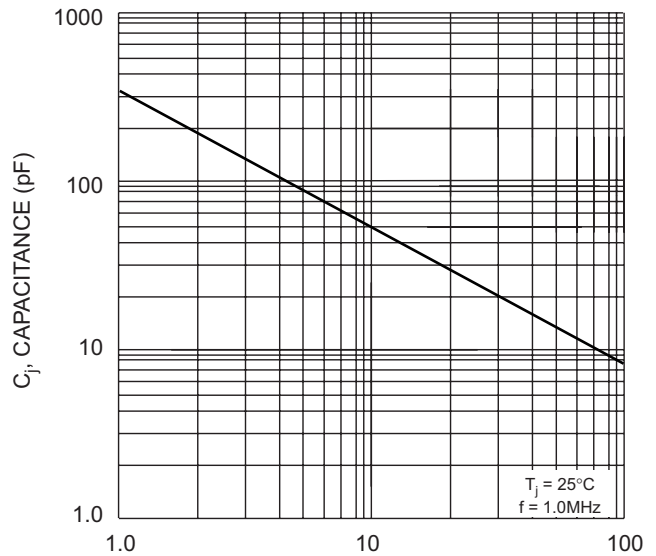
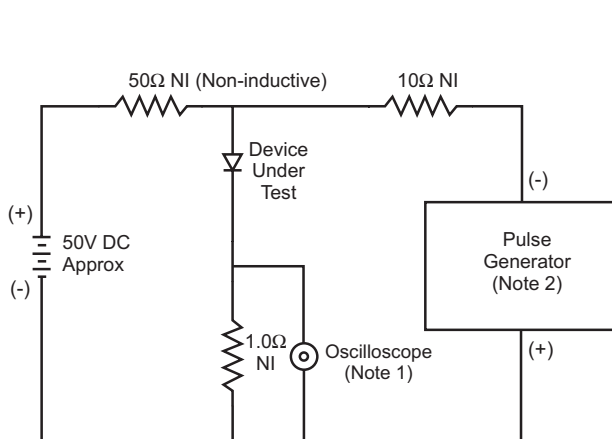


Fig. 4 Typical Junction Capacitance



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

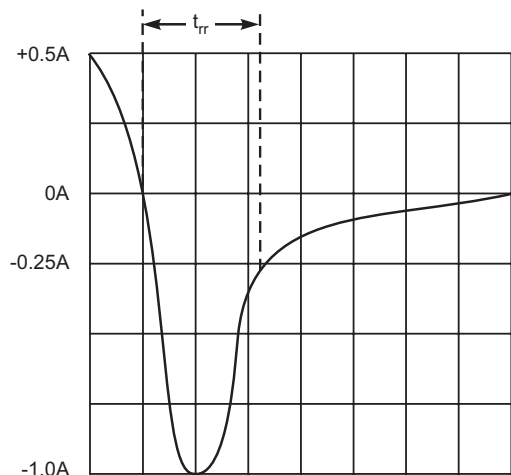


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

**TECHNICAL DATA**

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