

TO-220AC

Voltage Current 200 to 600 V 8.0 A

FEATURES

- Ultrafast recovery time for high efficiency
- Low power losses
- Low forward voltage drop
- High forward surge current capability





 Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C



ROHS

MECHANICAL DATA

- Case: TO-220AC. Epoxy meets UL 94V-0 flammability rating.
- Polarity: As marked on the body.
- Mounting Torque: 5 in-lbs maximum.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.

TYPICAL APPLICATIONS

Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application.

Maximun Ratings and Electrical Characteristics at 25°C

		SFA804G	SFA806G	SFA808G
	Marking Code	SFA804G	SFA806G	SFA808G
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600
V _{RMS}	Maximum RMS Voltage (V)	140 280 420		
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600
I _{F(AV)}	Maximum Average Forward current Current @ T _c = 100 °C		8 A	
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)	125 A		
T _{rr}	Maximum Reverse Recovery Time From I _F =0.5 A; I _R = 1 A; I _{RR} = 0.25 A	35 ns		
Сј	Typical Junction Capacitance at 1MHz and reverse voltage of 4VDC	100 pF	: 60 pF	
Tj	Operating Temperature Range	− 65 to + 150 °C		
T _{stg}	Storage Temperature Range	− 65 to + 150 °C		

Electrical Characteristics at Tamb = 25 °C

V _F	Max. forward voltage drop at IF = 8 A	Tj = 25 °C	0.975 V	1.3 V	1.7 V
I _R	Max. Instantaneous reverse	T _j = 25 °C	10 μΑ		
	current at $V_R = V_{RRMax}$	T _j = 100 °C	400 μΑ		
R_{thj-C}	Typical Thermal Resistance			4.0 °C/W	

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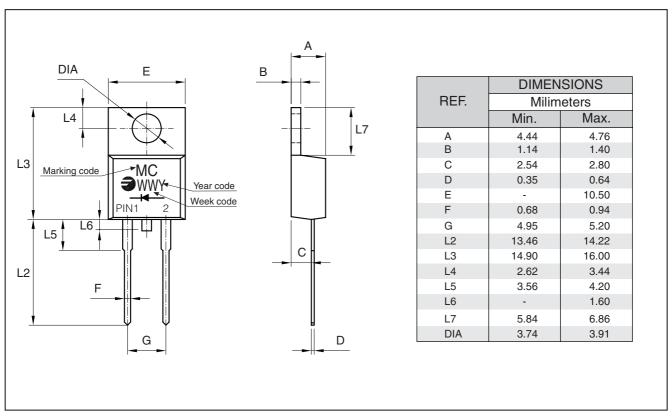
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Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
SFA804G 00TUC	TU	TUBE	2,000	2.24

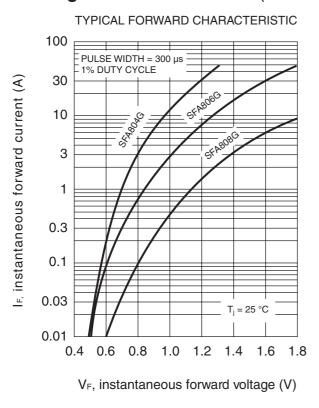
Package Outline Dimensions: (mm) TO-220AC





Ratings and Characteristics (Ta 25 °C unless otherwise noted)

I_{F(AV)}, average forward rectified current (A)



FORWARD CURRENT DERATING CURVE

RESISTIVE OR INDUCTIVE LOAD

4

2

0

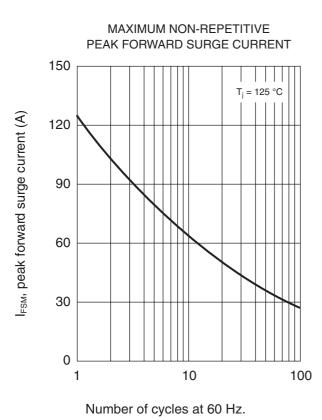
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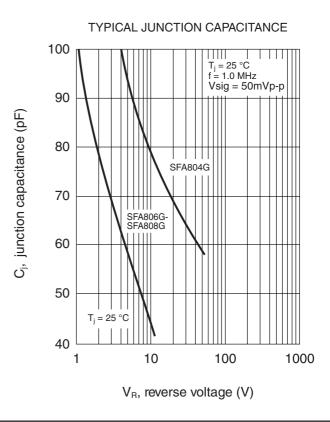
50

100

150

T_C, case temperature (°C)







Revision History

Date	Revision	Description of Changes
15-Mar-2009	0	Original Data Sheet
21-Sep-2016	1	Format update

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