



FF6 thru FF7

Surface Mount Glass Passivated Fast Recovery Rectifier
Reverse Voltage 800~1000V Forward Current 1A

Features

- Glass passivated Fast Recovery rectifiers
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260 °C /10 seconds
- Halogen-free according to IEC 61249-2-21 definition



eSGA
(SOD-123FL)

TYPICAL APPLICATIONS

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)					
PARAMETER	SYMBOL	FF6	FF7	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	800	1000	V	
Maximum RMS voltage	V _{RMS}	560	700	V	
Maximum DC blocking voltage	V _{DC}	800	1000	V	
Maximum average forward rectified current at TA (See Fig.1)	I _{F(AV)}	1.0			A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30			A
Operating junction and storage temperature range	T _J , T _{STG}	- 55 to + 150			°C

ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	FF6	FF7	UNIT	
Maximum instantaneous forward voltage	1 A	V _F	1.3		Volts	
Maximum DC reverse current at rated DC blocking voltage	TA=25 TA=125	I _R	5 50		µA	
Maximum reverse recovery time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	500		nS	
Typical junction capacitance	4.0 V, 1 MHz	C _J	7.5		pF	
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	70		°C/W	
	junction to case	R _{θJC}	25			
	junction to mount	R _{θJM}	5			

Note:1),The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 5x5mm copper pads,2 OZ,FR4 PCB

RATINGS AND CHARACTERISTICS CURVES

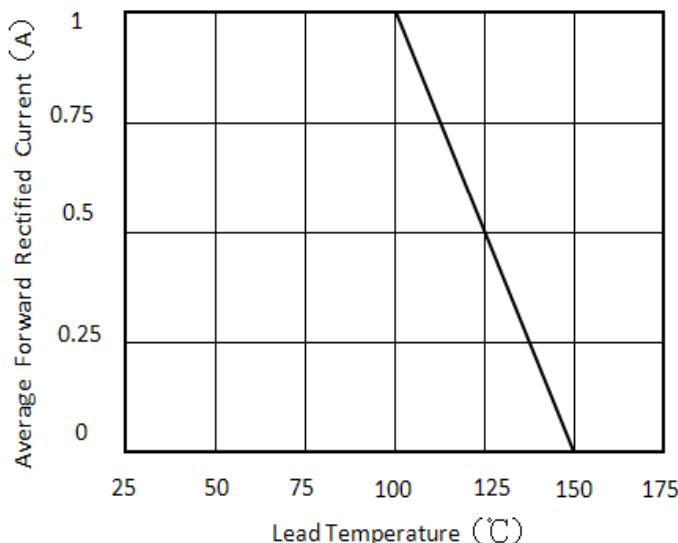


Figure 1. Forward Current Derating Curve

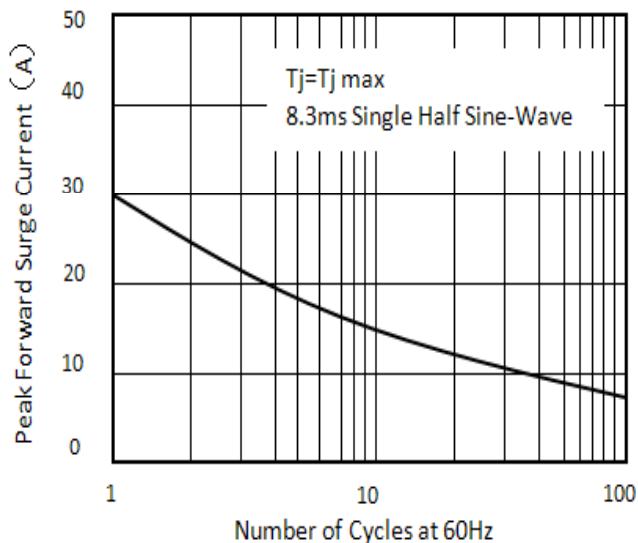


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

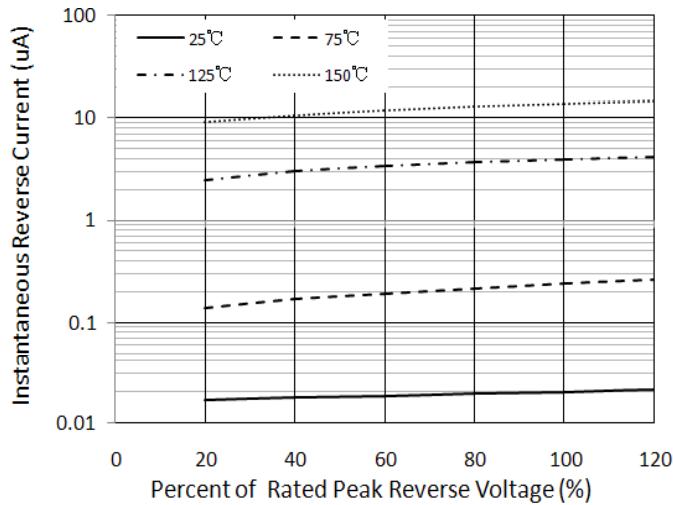


Figure 3. Typical Reverse Characteristics

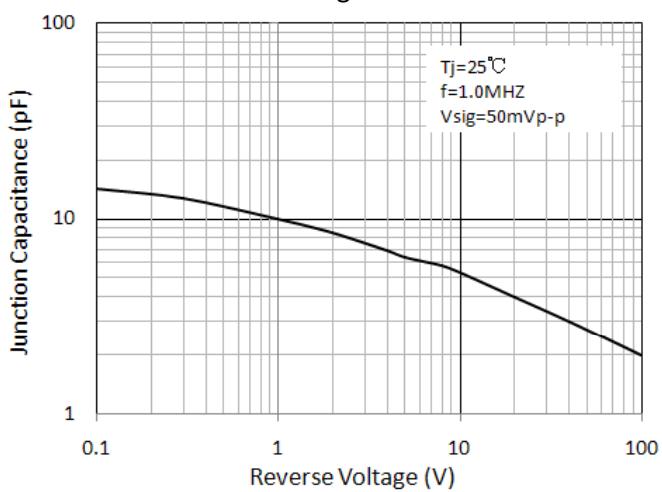


Figure 4. Typical Junction Capacitance

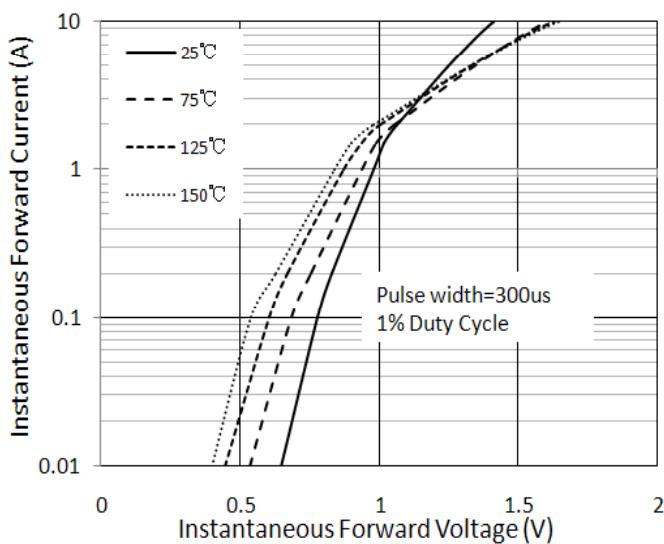
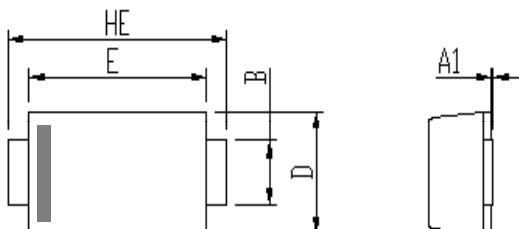
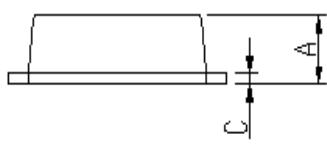


Figure 5. Typical Instantaneous Forward Characteristics

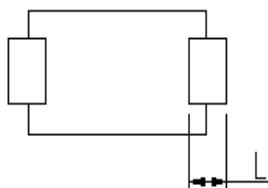
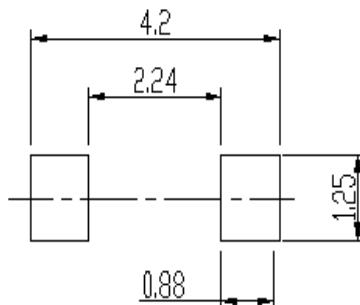
PACKAGE OUTLINE DIMENSIONS



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154



Soldering footprint



PACKING INFORMATION

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification

