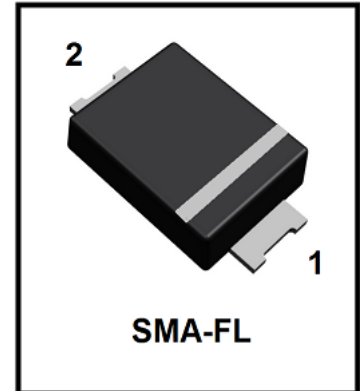


# EFMAF109

Surface Mount Glass Passivated Super Fast Rectifiers  
Reverse Voltage 800V Forward Current 1.0A

## 1. FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- High temperature metallurgically bonded construction.
- For use in high frequency rectifier circuits.
- Fast switching for high efficiency.
- Cavity-free glass passivated junction.
- Capable of meeting environmental standards of MIL-S-19500.
- 1.0 A operation at TC=75°C with no thermal runaway.
- High temperature soldering guaranteed: 260°C/10 seconds.
- Typical IR less than 1.0μA.
- We declare that the material of product is compliant with RoHS requirements and Halogen Free.



## 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-EFMAF109	EF9	3000/Tape&Reel

## 3. MAXIMUM RATINGS (TA = 25°C unless otherwise noted.)

Parameters	Symbol	Limits	Unit
Maximum repetitive peak reverse voltage	VRRM	800	V
Maximum RSM voltage	VRSM	560	V
Maximum DC blocking voltage	VDC	800	V
Maximum average forward rectified current at TC = 85°C	IF(AV)	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30	A
Typical thermal resistance (Note 2)	RθJA	150	°C/W
	RθJL	35	
Operating junction temperature range	TJ	-55 ~+150	°C
Storage temperature range	TSTG	-55 ~+150	°C

## 4. ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum instantaneous forward voltage at 1.0A	VF	-	-	1.85	V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage Tj = 125°C	IR	-	-	5	μA
		-	-	100	
Reverse recovery time (Note 1)	trr	-	-	35	ns
Typical junction capacitance at 4.0V, 1MHz	CJ	-	15	-	pF

Note: 1. IF = 0.5A, IR = 1.0A, IRR = 0.25A

2. 8.0mm<sup>2</sup>(.013mm thick) land areas.

## 5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1 - Forward Current Derating Curve

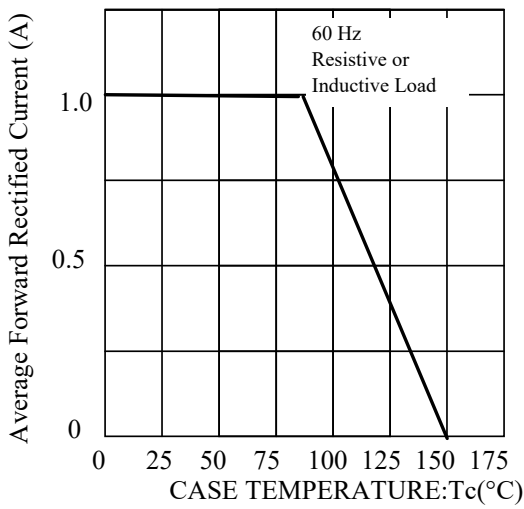


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

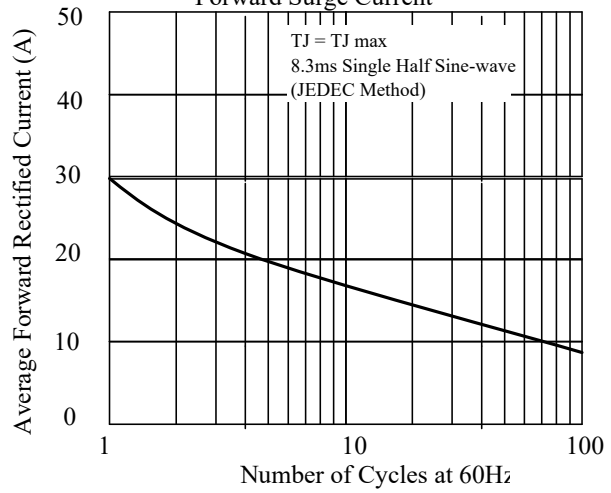


Fig 3. - Typical Instantaneous Forward Characteristics

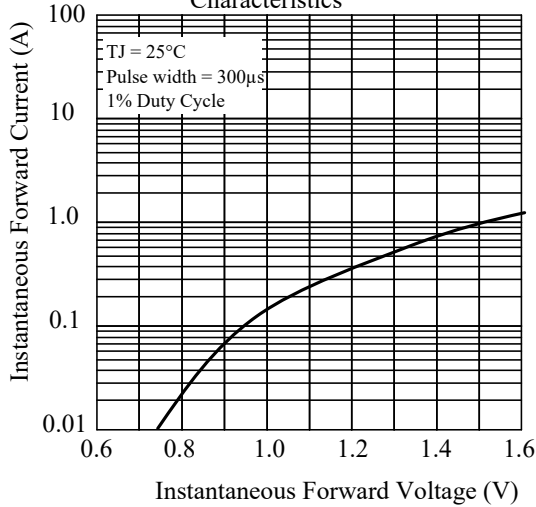


Fig 4. - Typical Reverse Characteristics

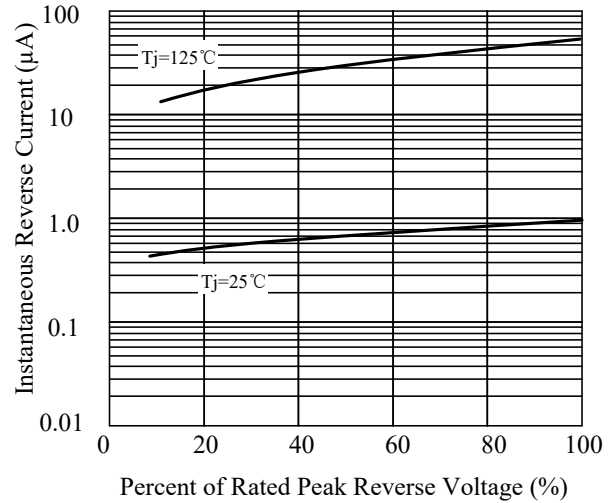


Fig 5. - typical transient thermal impedance

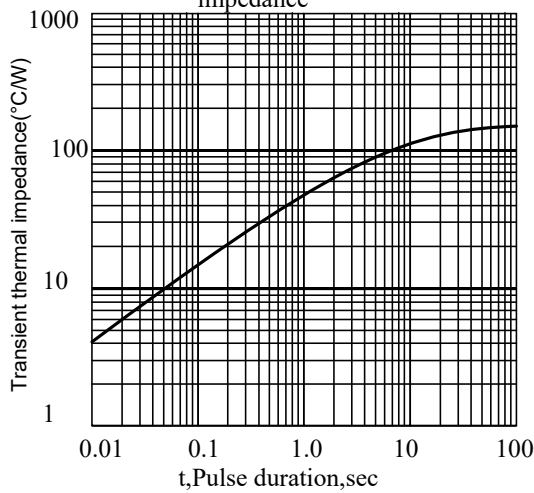
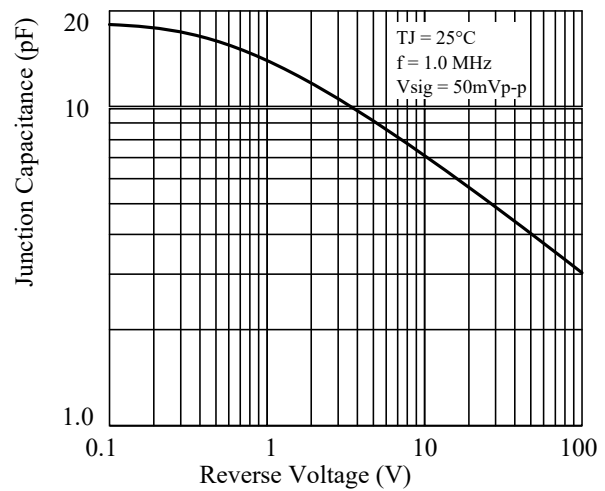
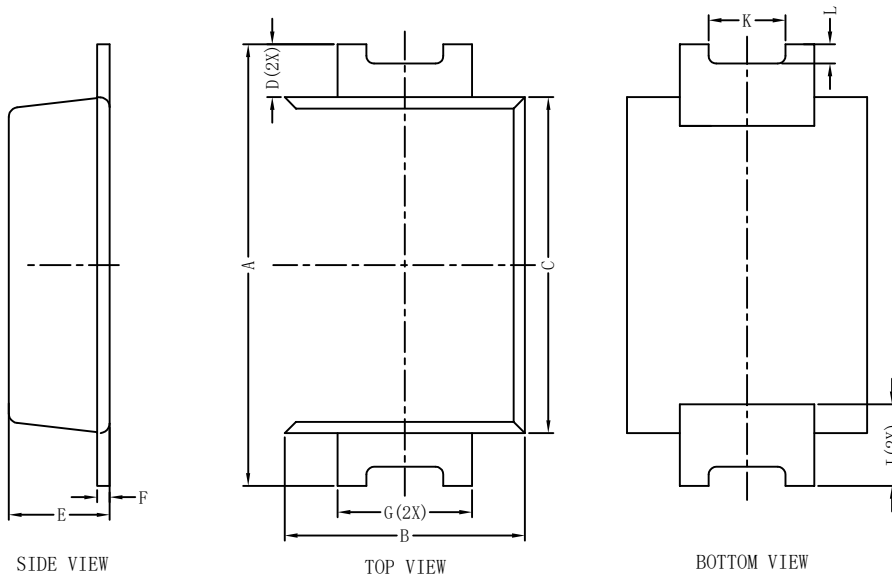


Fig 6. - Typical Junction Capacitance



## 6. OUTLINE AND DIMENSIONS

**SMA-FL**


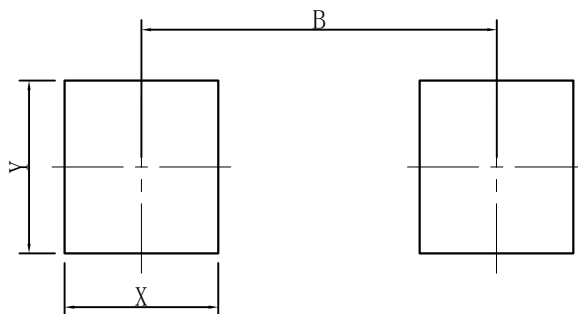
SMA-FL			
DIM	MIN	MAX	Typ.
A	4.40	4.80	4.60
B	2.30	2.70	2.60
C	3.30	3.70	3.50
D	-	-	0.55
E	0.90	1.20	1.05
F	0.11	0.21	0.17
G	1.30	1.50	1.40
I	0.70	1.10	0.90
K	-	-	0.80
L	-	-	0.20

All Dimensions in mm

### GENERAL NOTES

- 1.Top package surface finish Ra0.4±0.2um
- 2.Bottom package surface finish Ra0.7±0.2um

## 7. SOLDERING FOOTPRINT



SMA-FL	
DIM	(mm)
X	1.60
Y	1.80
B	3.70

## DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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