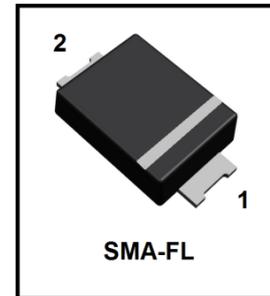


# S-FMAF407

Surface Mount Glass Passivated Junction Rectifiers  
Reverse Voltage 1000V Forward Current 1.0A

## 1. FEATURES

- We declare that the material of product complies with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- High temperature metallurgically bonded construction.
- Cavity-free glass passivated junction.
- Typical IR less than 1.0 $\mu$ A
- High temperature soldering guaranteed:260°C/10 seconds.
- 1.0 A operation at TL=100°C with no thermal runaway.
- Capable of meeting environmental standards of MIL-S-19500.



## 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-FMAF407	M07	3000/Tape&Reel

## 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Maximum repetitive peak reverse voltage	VRRM	1000	V
Maximum RMS voltage	VRMS	700	V
Maximum DC blocking voltage	VDC	1000	V
Maximum average forward rectified current lead length (See fig. 1) at TC = 75°C	IF(AV)	1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30	A
Typical thermal resistance (Note 1)	R $\theta$ JA	150	°C/W
Operating junction and storage temperature range	TJ, TSTG	-50 ~+150	°C

## 4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum instantaneous forward voltage at 1.0A	VF	-	-	1.1	V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 125°C	IR	-	-	5 50	$\mu$ A
Typical junction capacitance at 4.0V, 1MHz	CJ	-	8	-	PF

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

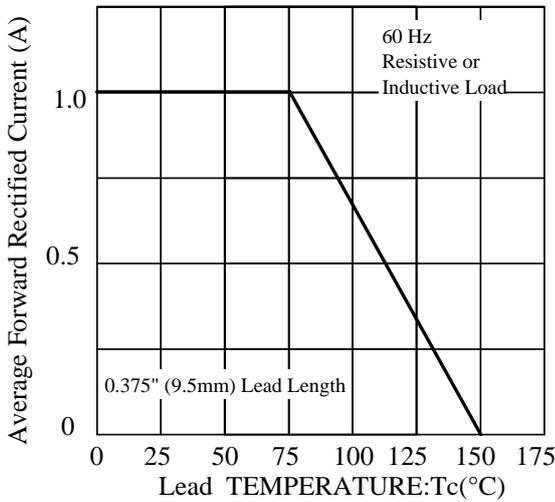


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

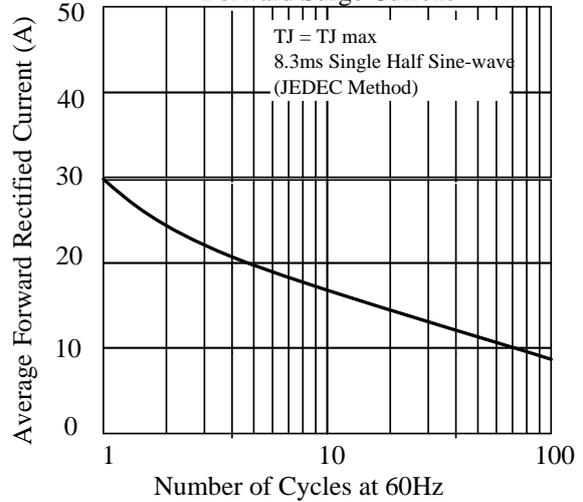


Fig 3. - Typical Instantaneous Forward Characteristics

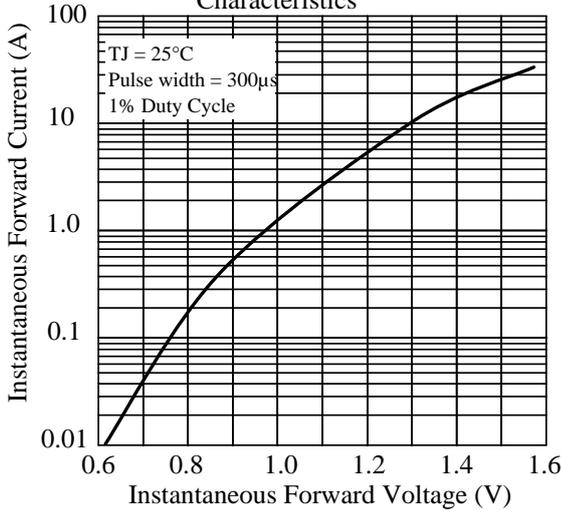


Fig 4. - Typical Reverse Characteristics

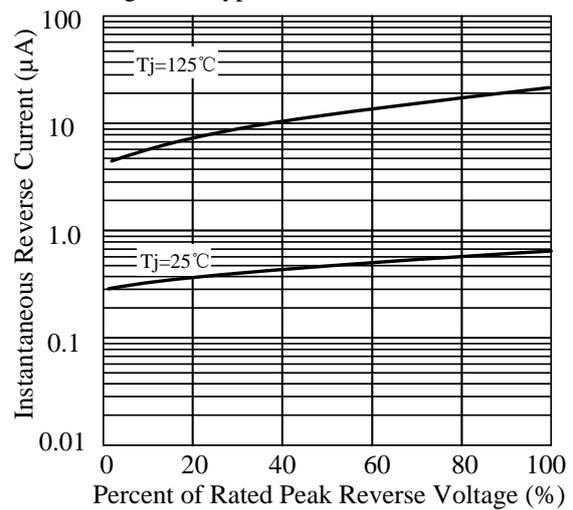


Fig 5. - typical transient thermal impedance

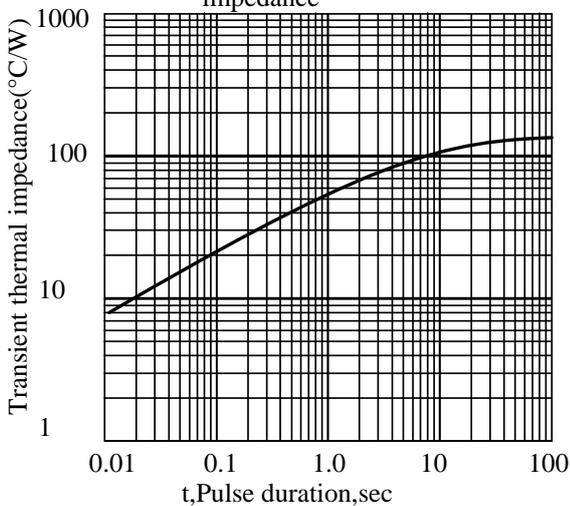
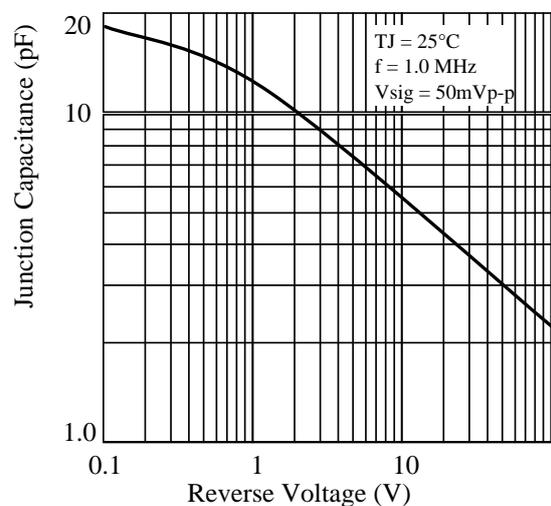
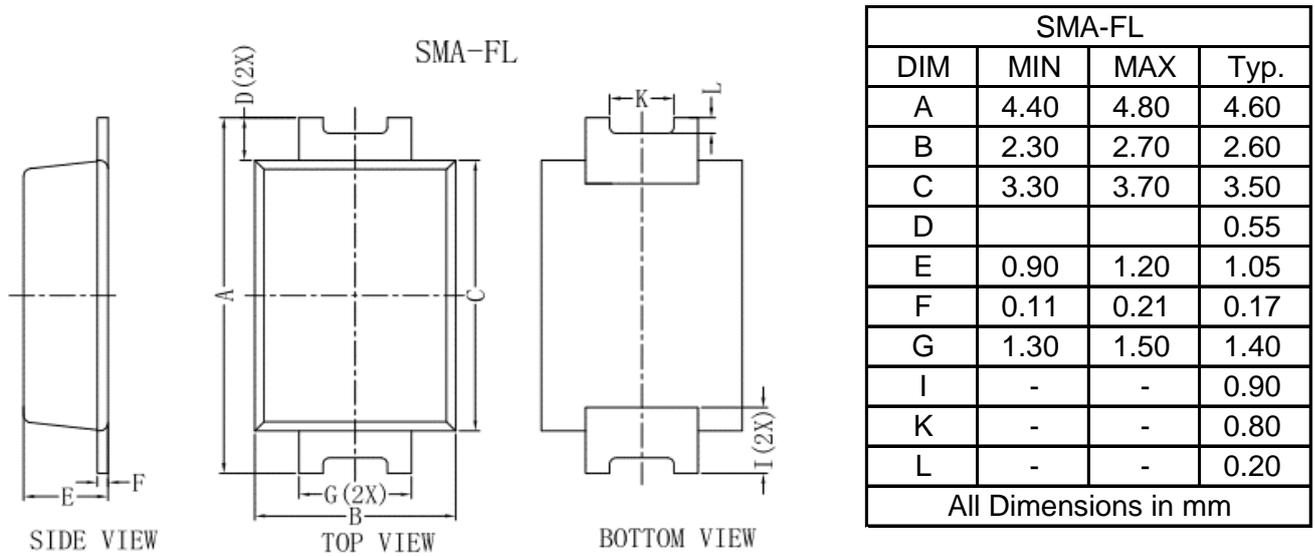
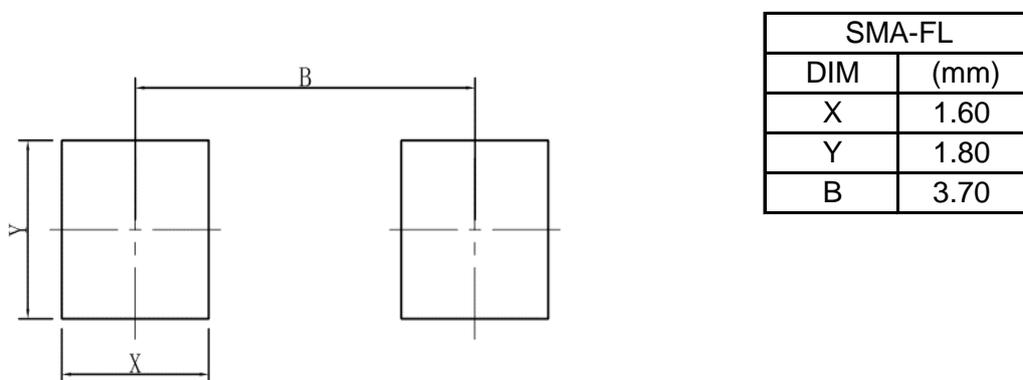


Fig 6. - Typical Junction Capacitance



**6.OUTLINE AND DIMENSIONS**

**GENERAL NOTES**

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

**7.SOLDERING FOOTPRINT**


## **DISCLAIMER**

- Before you use our Products, you are requested to carefully read this document and fully understand its contents. LRC shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any LRC's Products against warning, caution or note contained in this document.
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products, please confirm the latest information with a LRC sales representative.