



**THE DATASHEET OF  
RS1006FL**

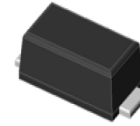


## Features

- 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



RoHS  
COMPLIANT



eSGA  
(SOD-123FL)

## Typical Applications

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

<b>Maximum Ratings</b> (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	RS1001 FL	RS1002 FL	RS1003 FL	RS1004 FL	RS1006 FL	RS1008 FL	RS1010 FL	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	30							A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

<b>Electrical Characteristics</b> (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	RS1001 FL	RS1002 FL	RS1003 FL	RS1004 FL	RS1006 FL	RS1008 FL	RS1010 FL	Unit
Maximum instantaneous forward voltage	1 A	V <sub>F</sub>	1.3						Volts	
Maximum DC reverse current at rated DC blocking voltage	TA=25°C TA=125°C	I <sub>R</sub>	5 50						µA	
Maximum reverse recovery time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	150				250	500	nS	
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	8.2						pF	
Typical thermal resistance <sup>1)</sup>	junction to ambient	R <sub>θJA</sub>	76						°C/W	
	junction to case	R <sub>θJC</sub>	42							
	junction to mount	R <sub>θJM</sub>	7							

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

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

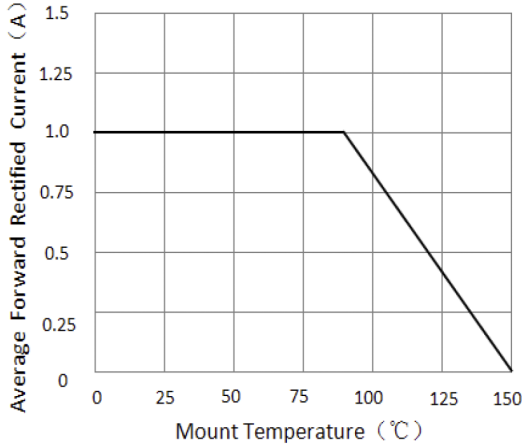


Figure 1. Forward Current Derating Curve

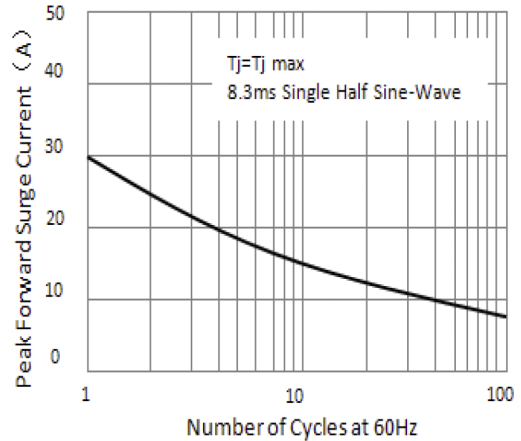


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

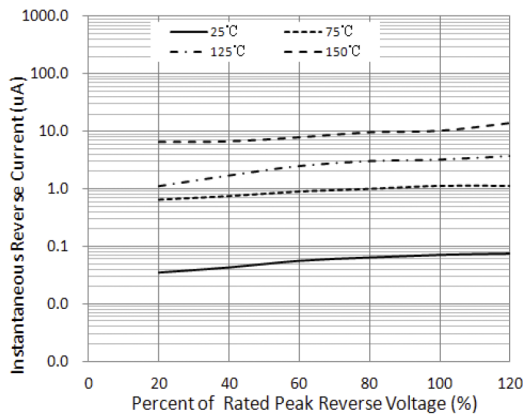


Figure 3. Typical Reverse Characteristics

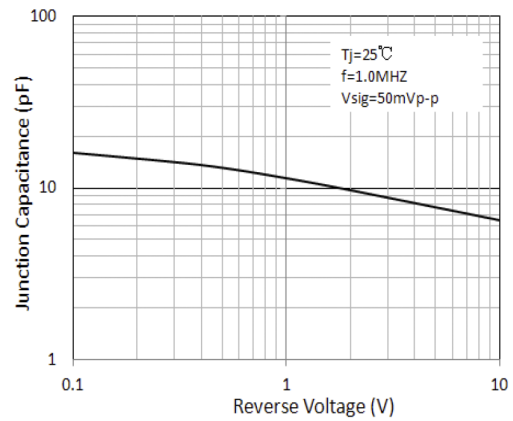


Figure 4. Typical Junction Capacitance

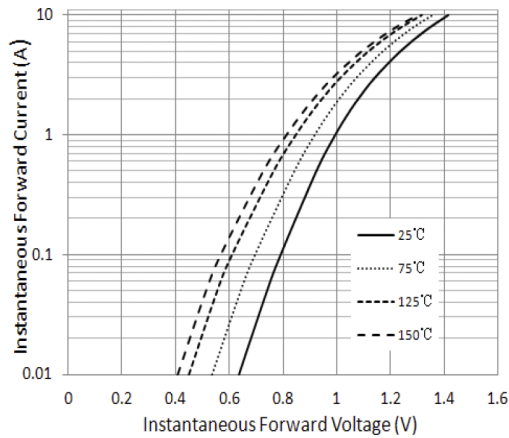
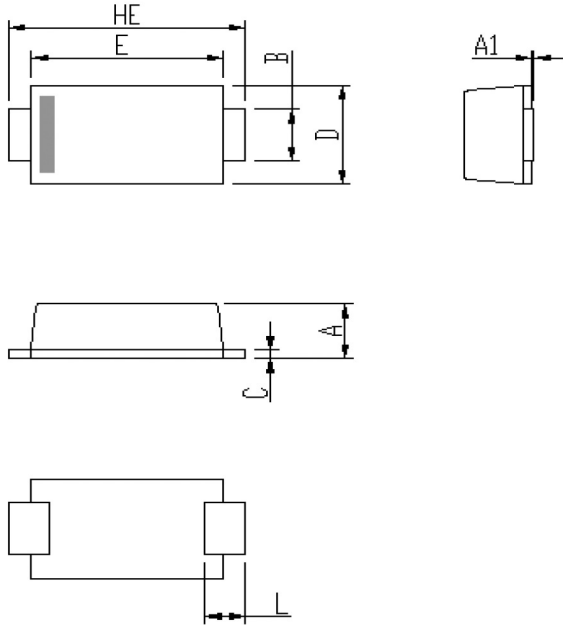


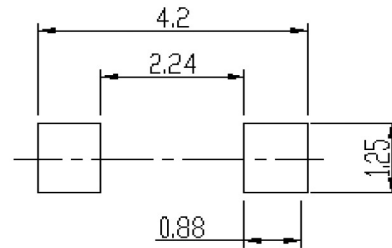
Figure 5. Typical Instantaneous Forward Characteristics

## 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

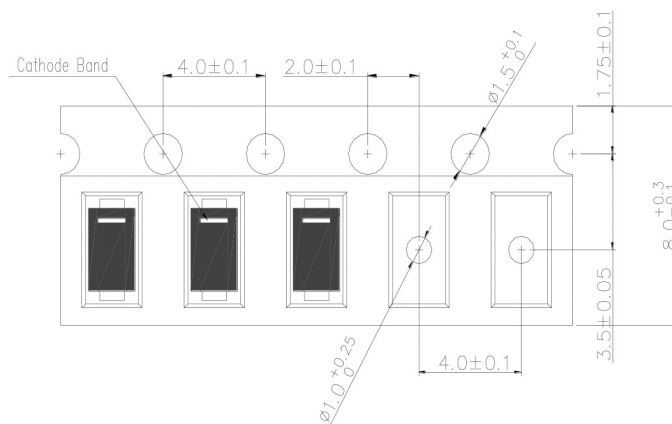
Soldering footprint



## Packing Information



**Packing quantities:**  
3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

### Tape & Reel Specification



## Looking for pricing, stock, or lifecycle information?

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