

# RS1001FL~RS1010FL

## SMALL SURFACE MOUNT FAST DIODES

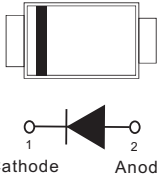
**VOLTAGE** 100 to 1000 Volt    **CURRENT** 1 Ampere

### FEATURES

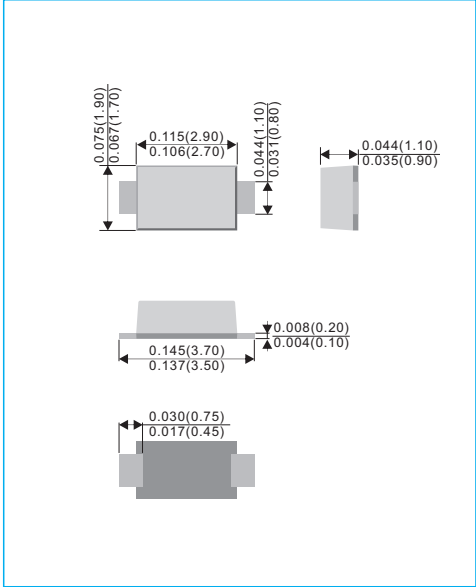
- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- Glass Passivated Chip Junction
- High temperature soldering : 260°C / 10 seconds at terminals
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : JEDEC SOD-123FL, Molded plastic over passivated junction
- Terminals : Solderable per MIL-STD-750, Method 2026
- Standard Packaging : 8mm tape (EIA-481)
- Apporx. Weight : 0.0006 ounces, 0.0173 grams
- Polarity : Color band cathode



**SOD-123FL**      Unit : inch(mm)



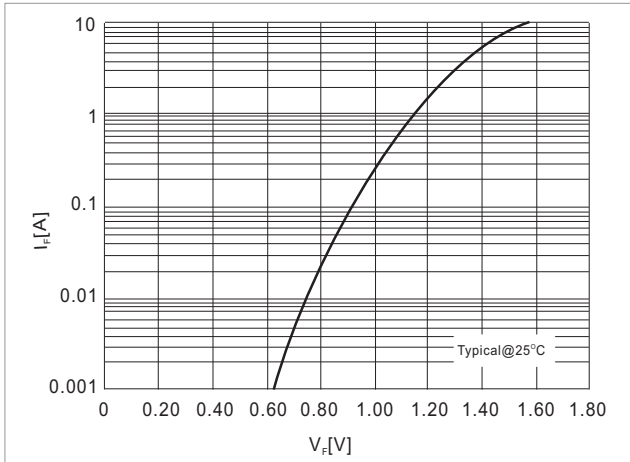
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

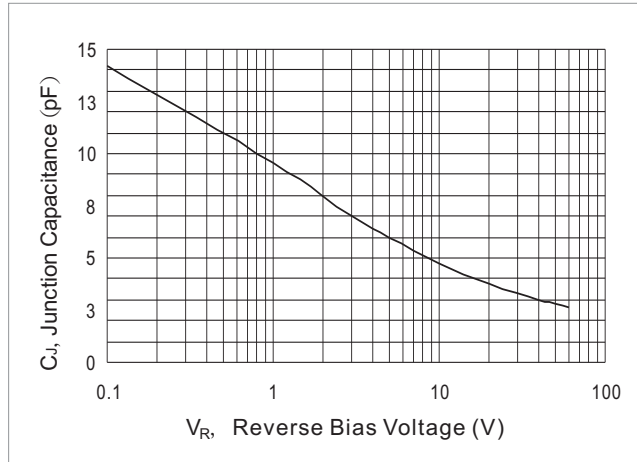
Rating	Test condition	Symbol	RS1001FL	RS1002FL	RS1004FL	RS1006FL	RS1008FL	RS1010FL	Units	
Marking code		-	R1B	R1D	R1G	R1J	R1K	R1M	-	
Maximum repetitive peak reverse voltage		$V_{RRM}$	100	200	400	600	800	1000	V	
Maximum rms voltage		$V_{RMS}$	70	140	280	420	560	700	V	
Maximum dc blocking voltage		$V_{DC}$	100	200	400	600	800	1000	V	
Maximum average forward rectified current Derate above $T_c=110^\circ\text{C}$		$I_{F(AV)}$	1						A	
Maximum instantaneous forward voltage	0.7A 1A	$V_F$	1.15 1.3						V	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		$I_{FSM}$	30						A	
Maximum dc reverse current at rated dc blocking voltage	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	1 50						$\mu\text{A}$	
Typical capacitance	4V,1MHz	$C_J$	9						pF	
Reverse recovery time	$I_F=0.5\text{A}$ $I_R=-1\text{A}$ $I_{tr}=-0.25\text{A}$	$t_{rr}$	150			250		500		nS
Typical thermal resistance junction to ambient (Note1)		$R_{\theta JA}$	200						$^\circ\text{C/W}$	
Operating junction and storage temperature range		$T_J, T_{STG}$	-55 to +150						$^\circ\text{C}$	

Note: 1. Mounted on a FR4 PCB, single-sided copper, mini pad.

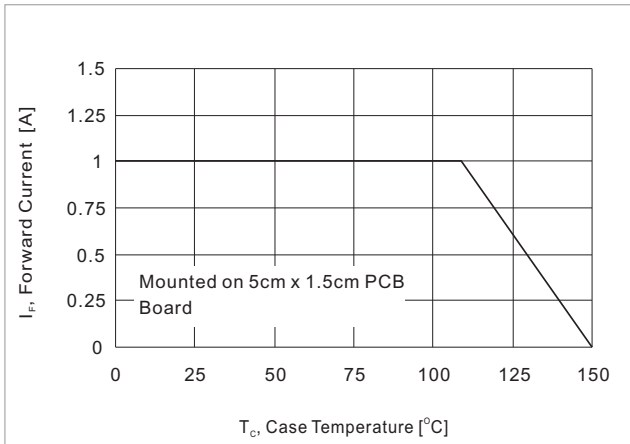
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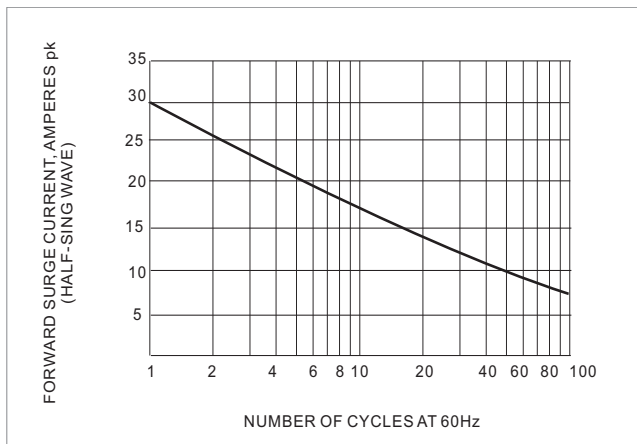
**Fig.1-TYPICAL FORWARD CHARACTERISTICS**



**Fig.2-TYPICAL JUNCTION CAPACITANCE**



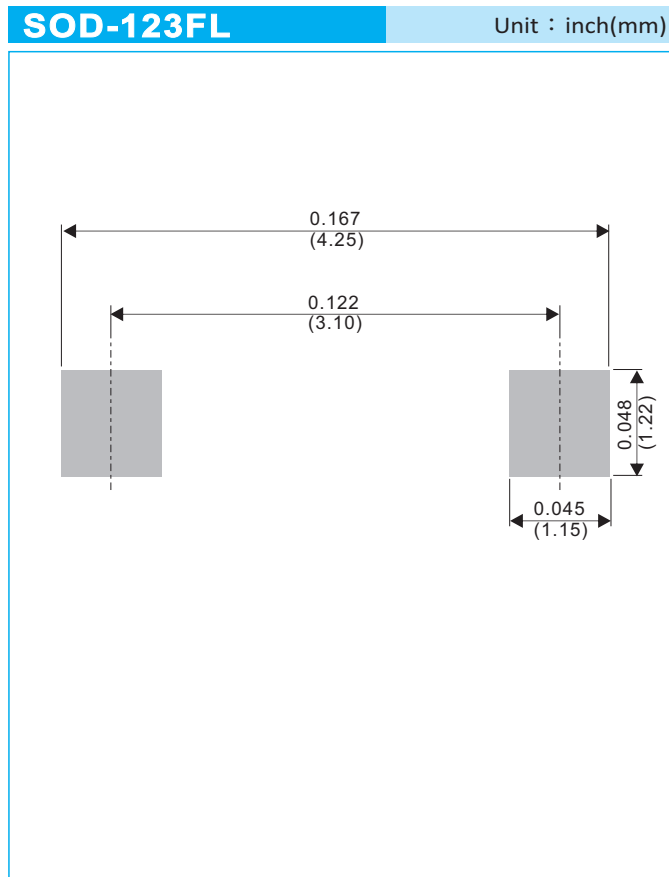
**Fig.3-FORWARD CURRENT DERATING CURVE**



**Fig.4-MAXIMUM NON-REPEITIVE SURGE CURRENT**

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel

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