



# RS1001FL~RS1010FL

## SMALL SURFACE MOUNT FAST DIODES

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

### FEATURES

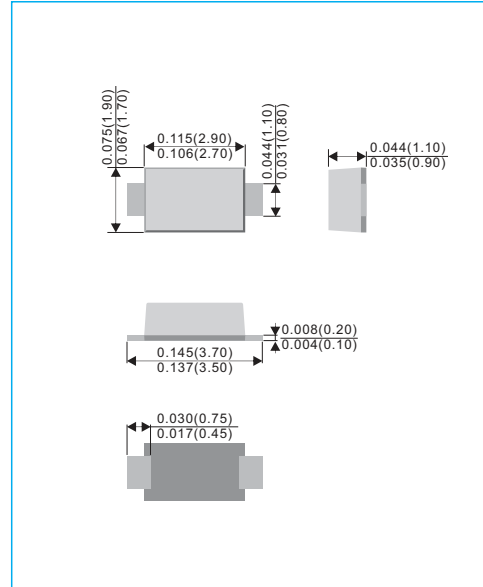
- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- Glass Passivated Chip Junction
- High temperature soldering : 260°C / 10 seconds at terminals
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0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

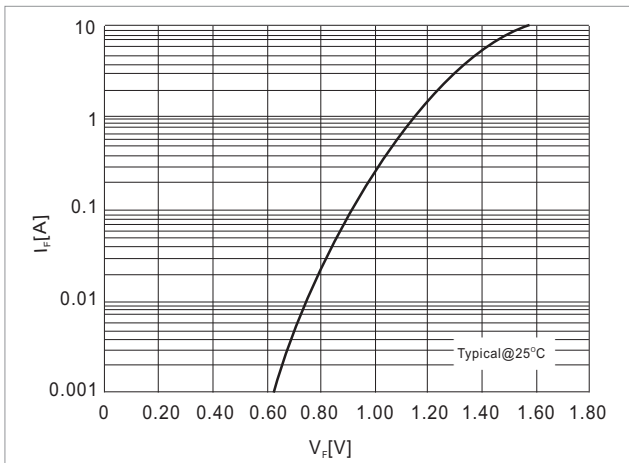
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

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	$I_F=0.5\text{A}$ $I_R=-1\text{A}$ $I_{rr}=-0.25\text{A}$	$t_{rr}$	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						$^\circ\text{C}$

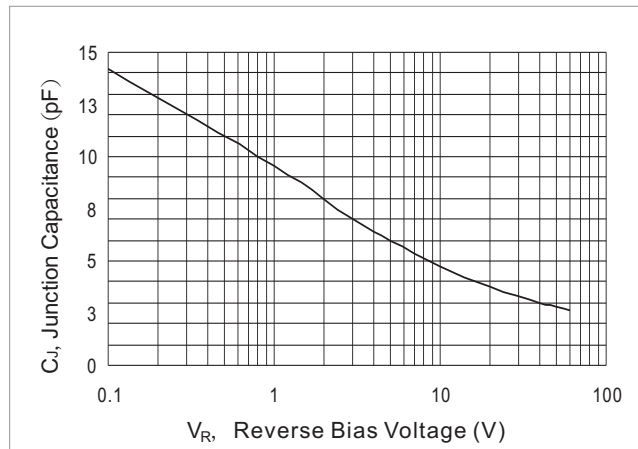
Note: 1. Mounted on a FR4 PCB, single-sided copper, mini pad.



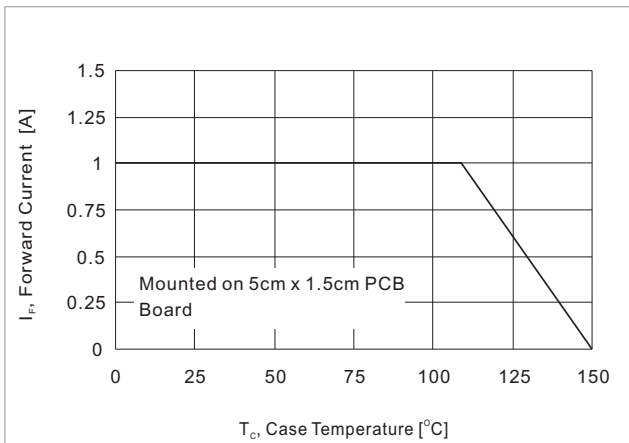
## RS1001FL~RS1010FL



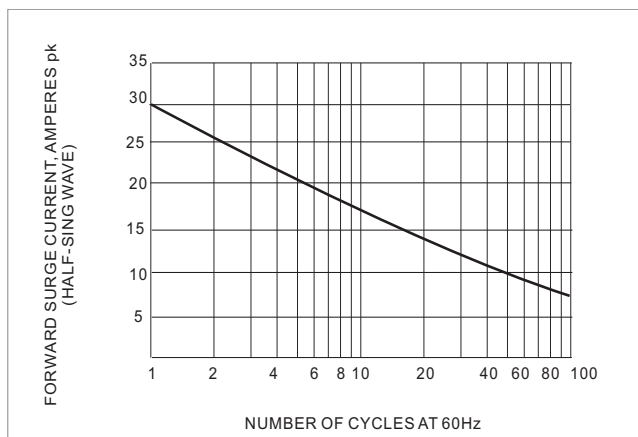
**Fig.1-TYPICAL FORWARD CHARACTERISTICS**



**Fig.2-TYPICAL JUNCTION CAPACITANCE**



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

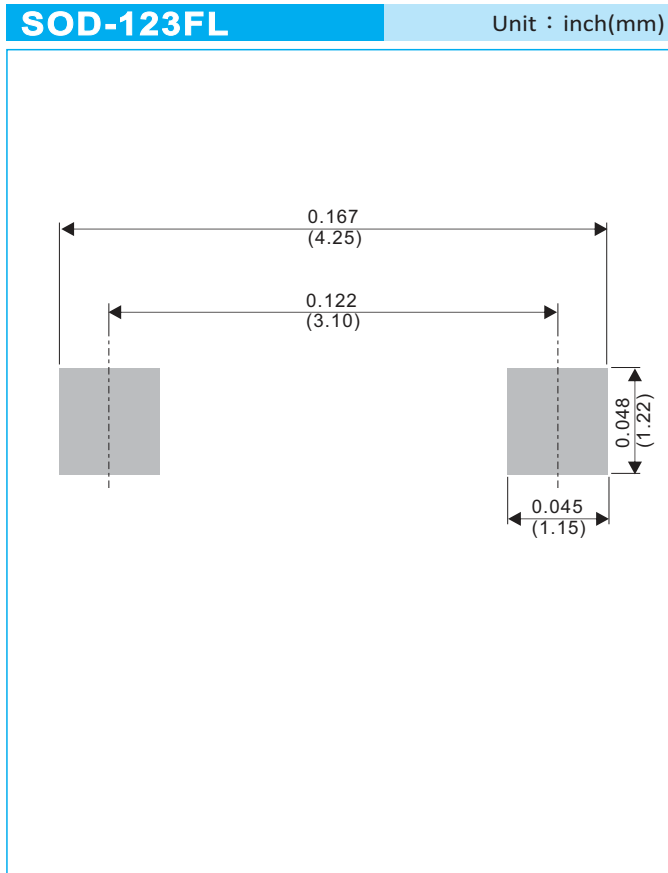


**Fig.4-MAXIMUM NON-REPEITIVE SURGE CURRENT**



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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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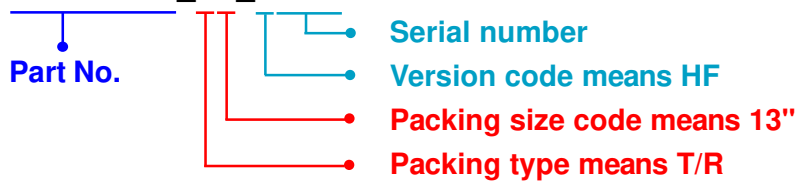
### Part No\_packing code\_Version

RS1001FL\_R1\_00001

RS1001FL\_R2\_00001

For example :

**RB500V-40** **R2** **00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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