



RS1001FL~RS1010FL

SMALL SURFACE MOUNT FAST DIODES

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

FEATURES

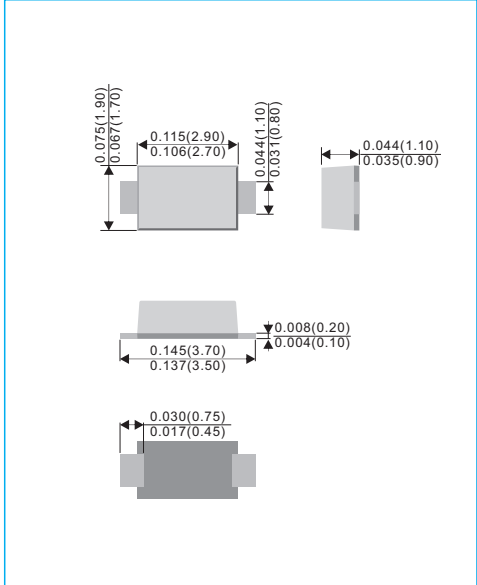
- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- Glass Passivated Chip Junction
- High temperature soldering : 260°C / 10 seconds at terminals
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0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

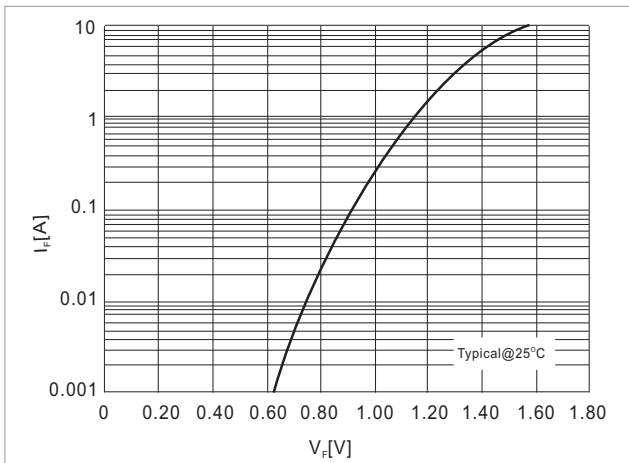


Fig.1-TYPICAL FORWARD CHARACTERISTICS

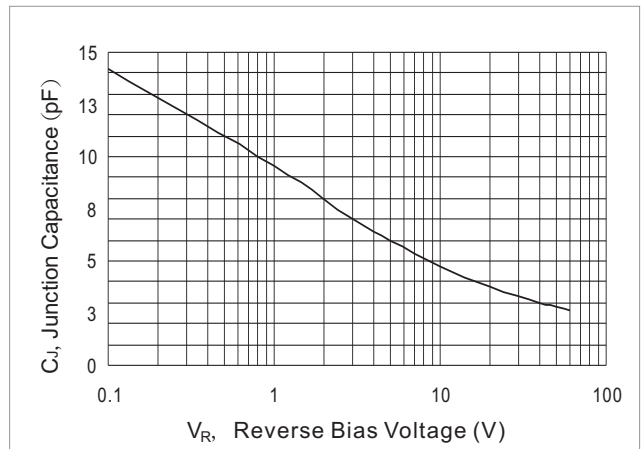


Fig.2-TYPICAL JUNCTION CAPACITANCE

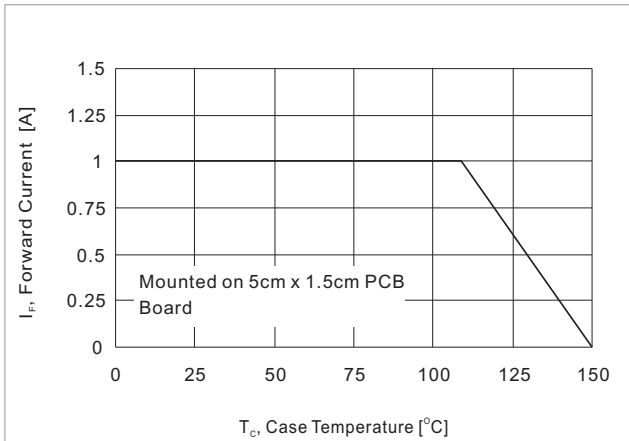


Fig.3-FORWARD CURRENT DERATING CURVE

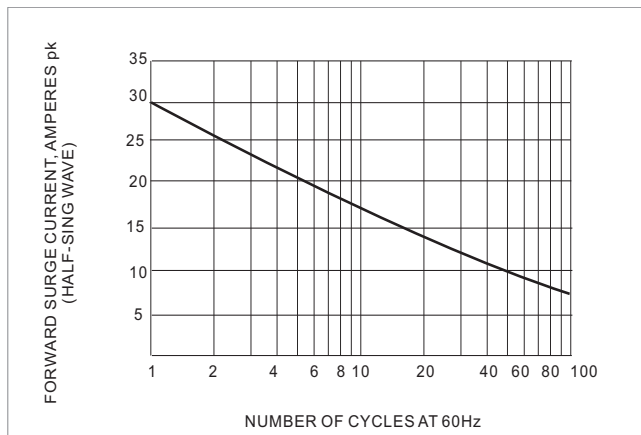
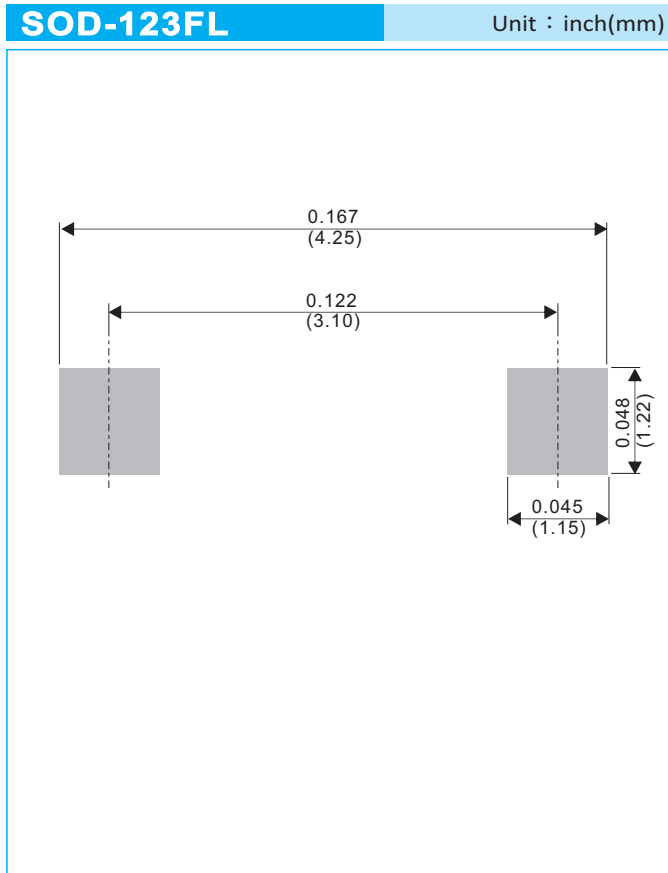


Fig.4-MAXIMUM NON-REPEITIVE SURGE CURRENT



RS1001FL~RS1010FL

MOUNTING PAD LAYOUT



ORDER INFORMATION

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



RS1001FL~RS1010FL

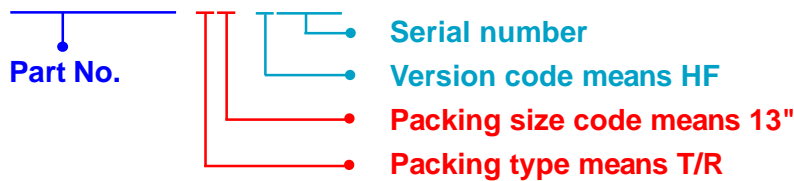
Part No_packing code_Version

RS1001FL_R1_00001

RS1001FL_R2_00001

For example :

RB500V-40_R2_00001



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



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