



US1001FL~US1008FL

SMALL SURFACE MOUNT FAST DIODES

VOLTAGE 100 to 800 Volts **CURRENT** 1.0 Amperes

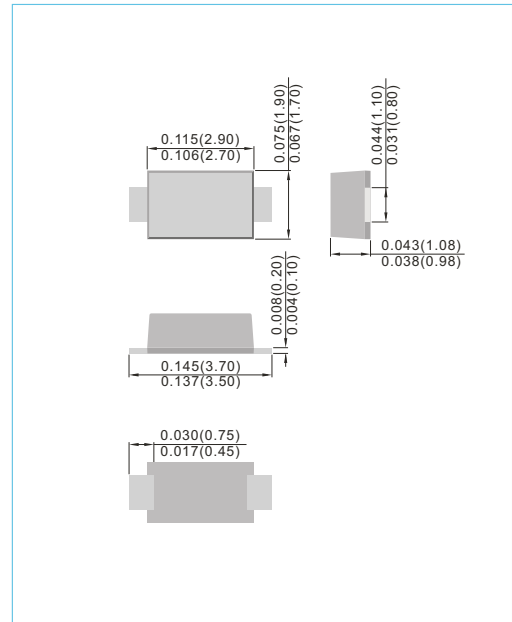
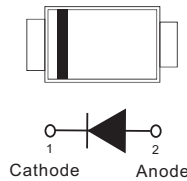
SOD-123FL Unit : inch(mm)

FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated Chip Junction
- High temperature soldering : 260°C / 10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOD-123FL, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounce, 0.0172 gram
- Polarity : Color band cathode



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	US1001FL	US1002FL	US1004FL	US1006FL	US1008FL	Units
Marking code		-	U1B	U1D	U1G	U1J	U1K	-
Maximum repetitive peak reverse voltage		V_{RRM}	100	200	400	600	800	V
Maximum RMS voltage		V_{RMS}	70	140	280	420	560	V
Maximum DC blocking voltage		V_{DC}	100	200	400	600	800	V
Maximum average forward rectified current	$T_A=25^\circ\text{C}$	$I_{F(AV)}$	1					A
Peak forward surge current 8.3ms single half sine-wave	$T_L=25^\circ\text{C}$	I_{FSM}	30					A
Maximum instantaneous forward voltage	1A	V_F	1		1.4		1.7	V
Maximum DC reverse current at rated DC blocking voltage	$T_J=25^\circ\text{C}$	I_R	1					μA
Reverse recovery time	$I_F=0.5\text{A}$ $I_R=1\text{A}$ $I_{rr}=0.25\text{A}$	t_{rr}	50			100		nS
Typical capacitance	4V,1MHz	C_J	9					pF
Thermal resistance junction to ambient air		$R_{\theta JA}$	180					$^\circ\text{C/W}$
Operating junction and storage temperature range		T_J, T_{STG}	-55 to +150					$^\circ\text{C}$



US1001FL~US1008FL

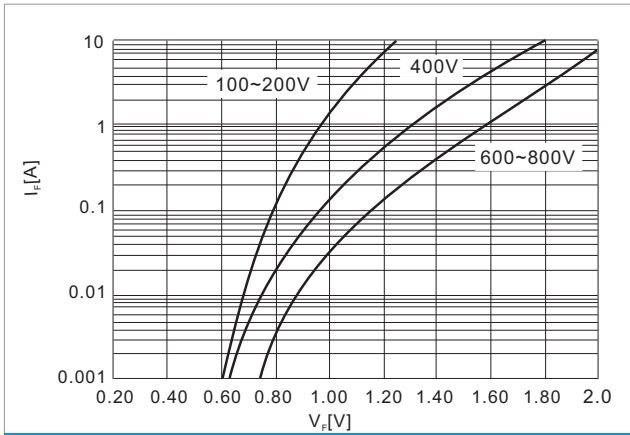


Fig. 1-Typical forward characteristics

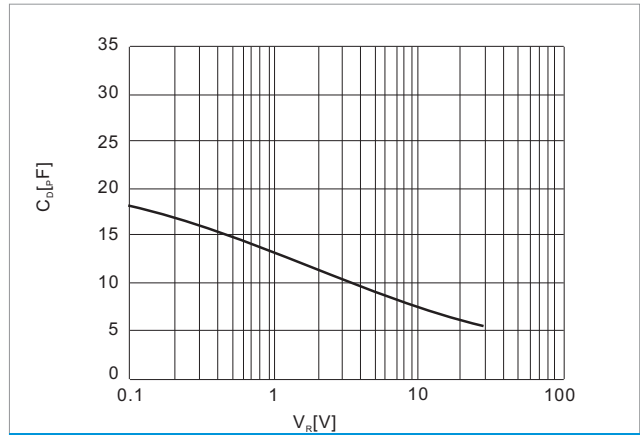


Fig. 2-Typical diode capacitance vs. Reverse voltage

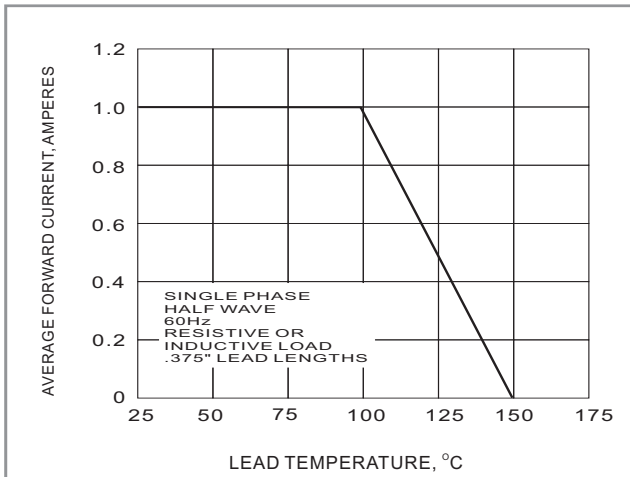


Fig. 3 FORWARD CURRENT DERATING CURVE

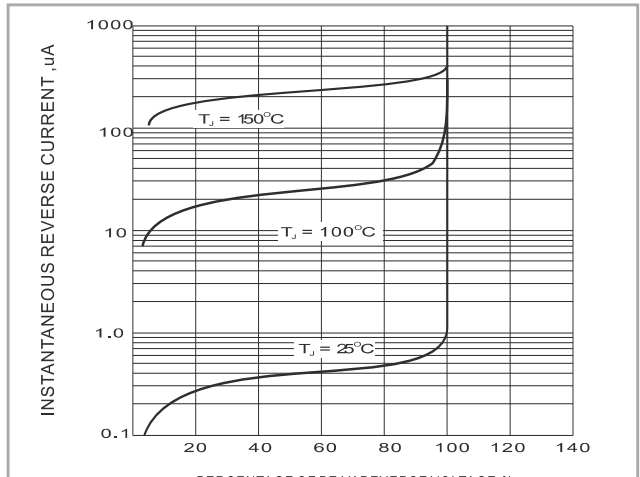


Fig. 4-TYPICAL REVERSE CHARACTERISTIC

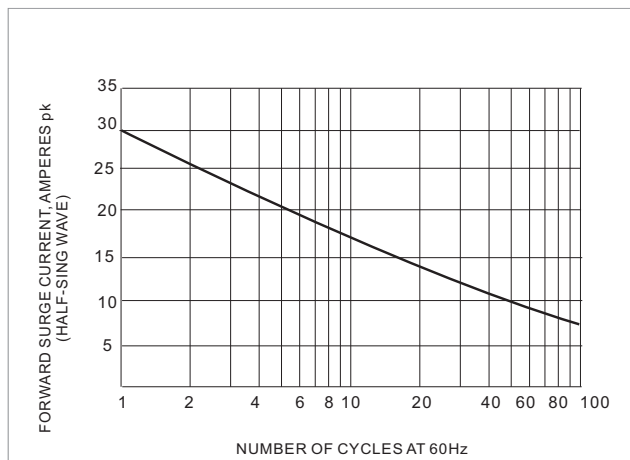
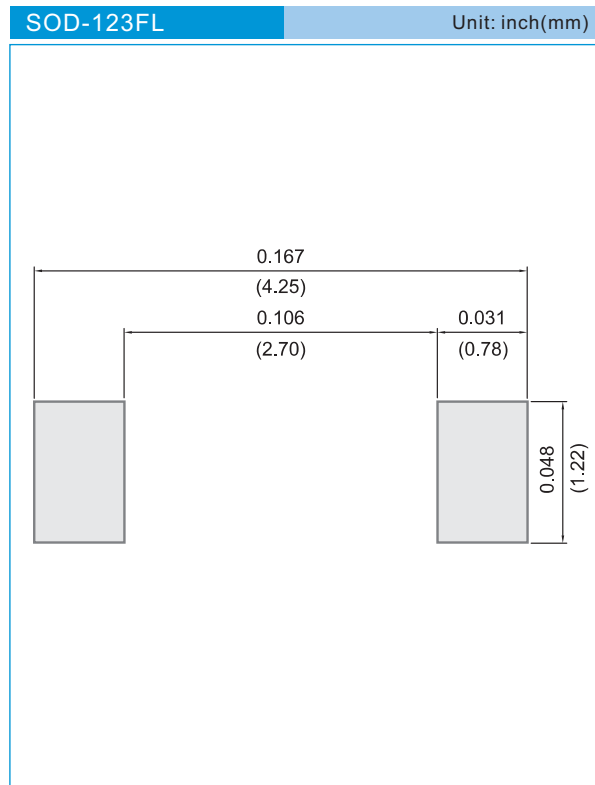


FIG. 5 MAXIMUM NON-REPEITIVE SURGE CURRENT



US1001FL~US1008FL

MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

Copyright PanJit International, Inc 2010

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.