



US1001FL~US1008FL

SMALL SURFACE MOUNT FAST DIODES

VOLTAGE 100 to 800 Volt

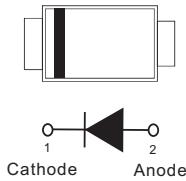
CURRENT 1 Ampere

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
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

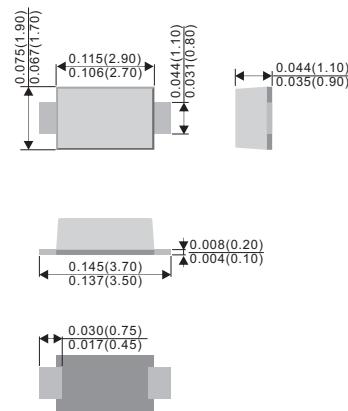
MECHANICAL DATA

- Case: SOD-123FL, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounces, 0.0173 grams
- Polarity: Color band denotes cathode end



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	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_R	100	200	400	600	800	V
Maximum average forward rectified current	$T_A=25^\circ C$	$I_{F(AV)}$			1			A
Peak forward surge current 8.3ms single half sine-wave	$T_L=25^\circ C$	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	$T_J=25^\circ C$	I_R			1			μA
Reverse recovery time	$I_F=0.5A$ $I_R=1A$ $I_{rr}=0.25A$	t_{rr}		50		100		nS
Typical capacitance	4V,1MHz	C_J		9				pF
Typical thermal resistance	(Note 1)	$R_{\theta JA}$		200				$^\circ C/W$
Operating junction and storage temperature range		T_J, T_{STG}		-55 to +150				$^\circ C$

NOTE : 1. Mounted on an FR4 PCB, single-sided copper, mini pad.



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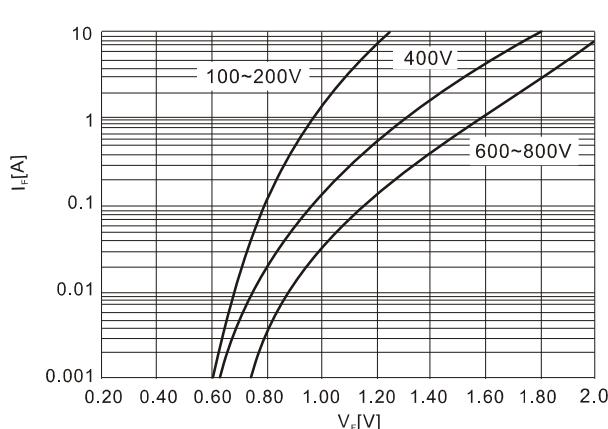


Fig.1-Typical forward characteristics

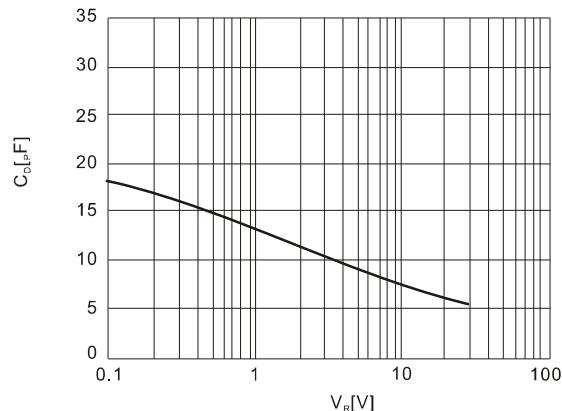


Fig.2-Typical diode capacitance vs. Reverse voltage

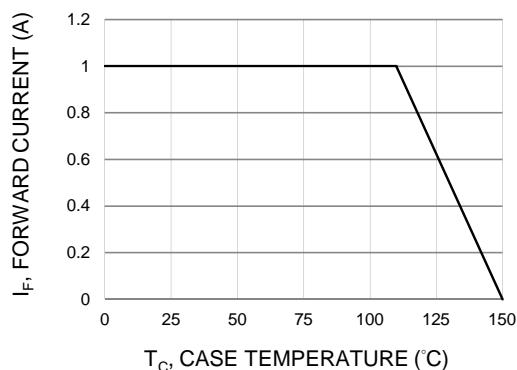


Fig.3 FORWARD CURRENT DERATING CURVE

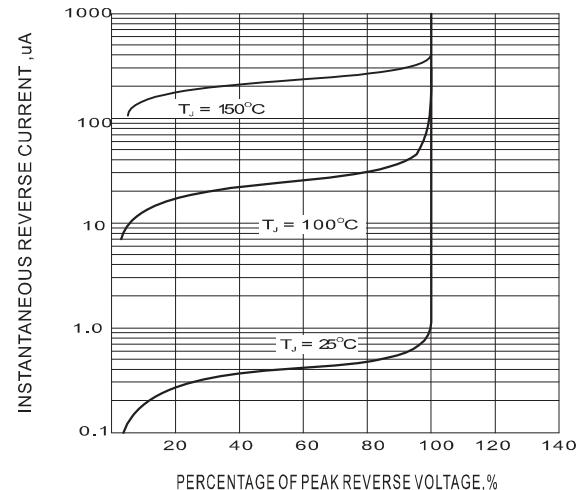


Fig.4 -TYPICAL REVERSE CHARACTERISTIC

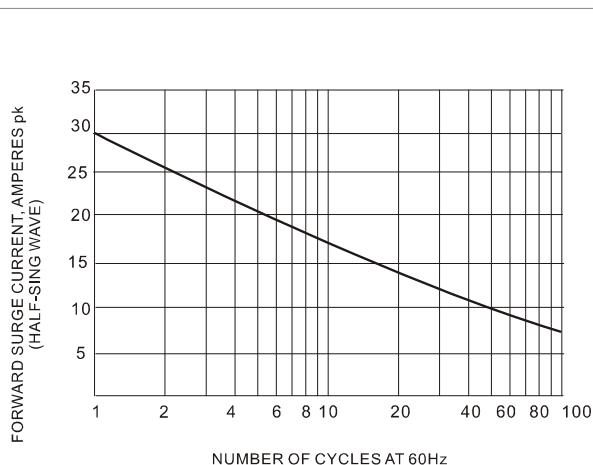
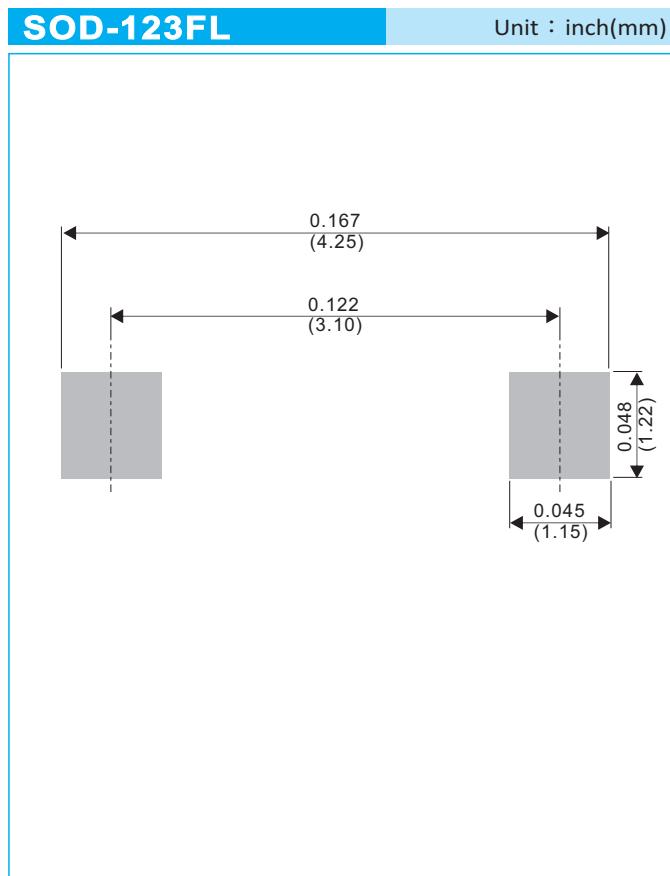


FIG.5 MAXIMUM NON-REPETITIVE SURGE CURRENT



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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



US1001FL~US1008FL

Part No_packing code_Version

US1001FL_R1_00001

US1001FL_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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