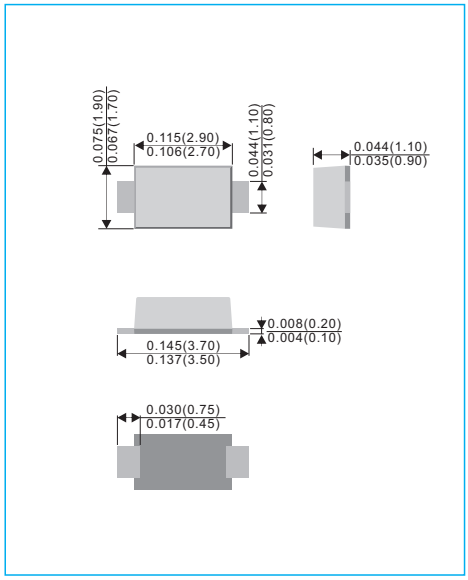
PANJIT SEMI CONDUCTOR

US1001FL~US1008FL

SMALL SURFACE MOUNT FAST DIODES

VOLTAGE 100 to 800 Volt **CURRENT** 1 Ampere

SOD-123FL Unit：inch(mm)

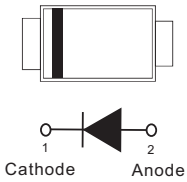


FEATURES

- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- Glass Passivated Chip Junction
- High temperature soldering : 260^{O}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



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 repetitve 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^{O}C	$I_{F(AV)}$	1					A
Peak forward surge current 8.3ms single half sine-wave	T_L=25^{O}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^{O}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					^{O}C/W
Operating junction and storage temperature range		T_J ,T_{STG}	-55 to +150					^{O}C

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

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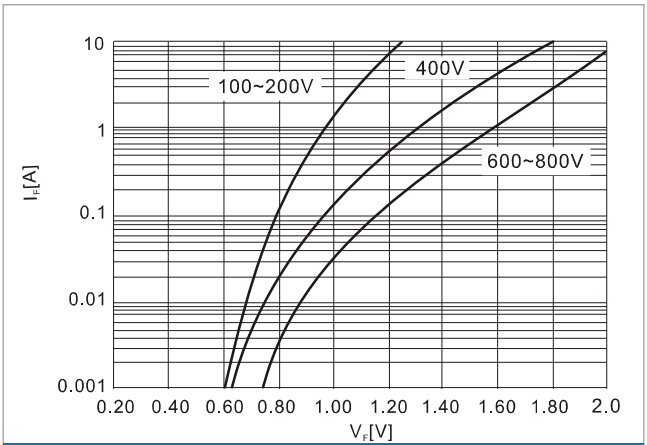

Fig.1-Typical forward characteristics

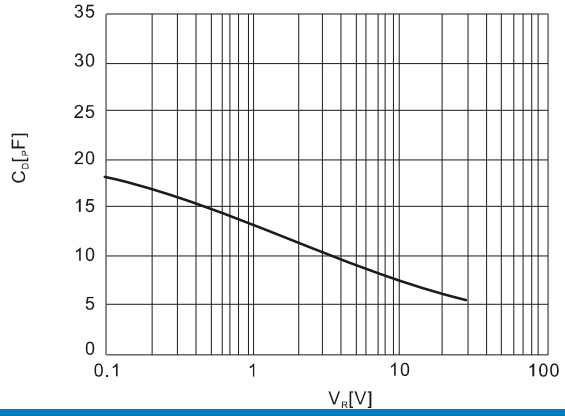

Fig.2-Typical diode capacitance vs. Reverse voltage

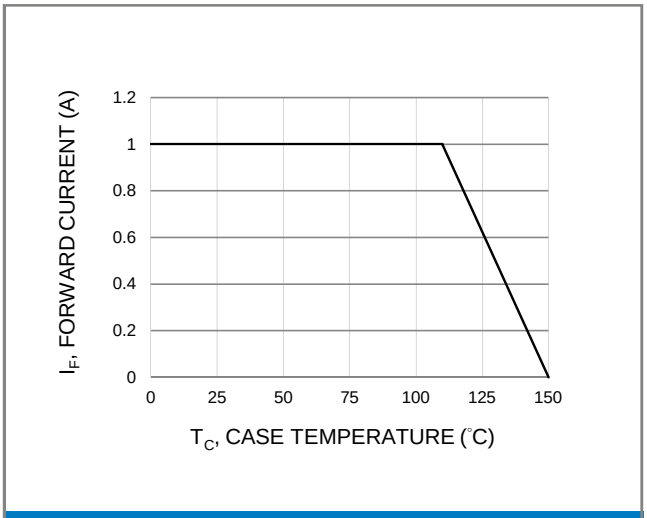

Fig.3 FORWARD CURRENT DERATING CURVE

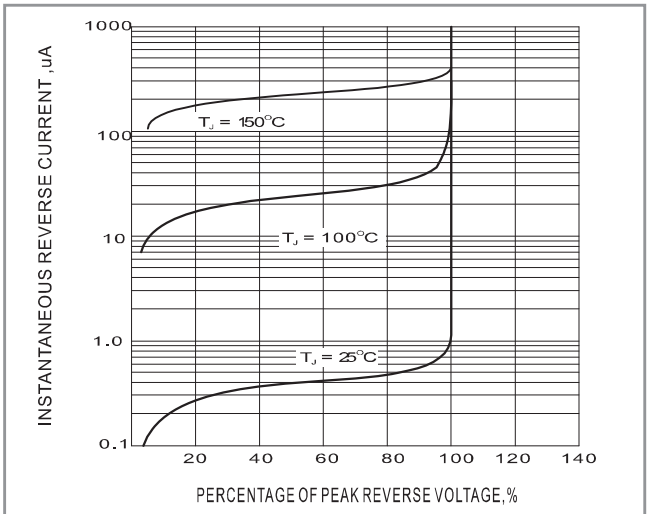

Fig.4 -TYPICAL REVERSE CHARACTERISTIC

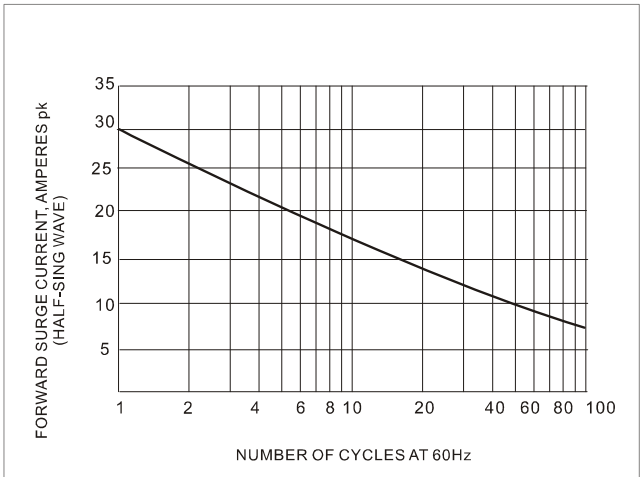

FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT

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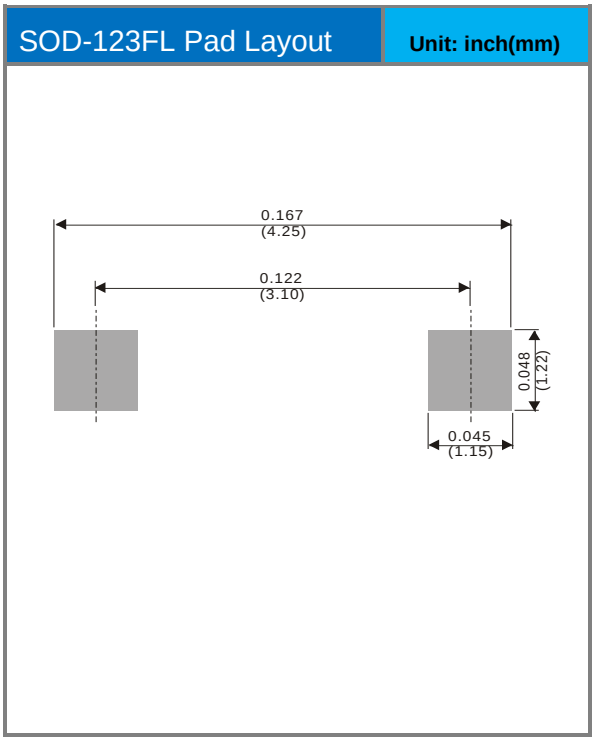
Product and Packing Information

Part No.	Package Type	Packing Type	Marking
US100xFL	SOD-123FL	3K pcs / 7” reel	See Table
US100xFL	SOD-123FL	10K pcs / 13” reel	See Table

Mounting Pad Layout



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