



ES1001FL-AU~ES1006FL-AU

SMALL SURFACE MOUNT SUPER FAST DIODES

VOLTAGE 100 to 600 Volt **CURRENT** 1 Ampere

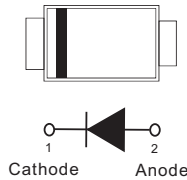
SOD-123FL Unit : inch(mm)

FEATURES

- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- Glass passivated
- High temperature soldering : 260°C / 10 seconds at terminals
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

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



ABSOLUTE RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Test condition	Symbol	ES1001FL-AU	ES1002FL-AU	ES1004FL-AU	ES1006FL-AU	Units
Marking Code		-	E1B	E1D	E1G	E1J	-
Maximum repetitive peak reverse voltage		V _{RRM}	100	200	400	600	V
Maximum RMS voltage		V _{RMS}	70	140	280	420	V
Maximum DC blocking voltage		V _{DC}	100	200	400	600	V
Maximum average forward current	T _L =120°C	I _{F(AV)}	1				A
Peak forward surge current 8.3ms single half sine-wave	T _L =25°C	I _{FSM}	30				A
Maximum instantaneous forward voltage	1.0A	V _F	0.95		1.25	1.7	V
Maximum DC reverse current at rated DC blocking voltage	T _J =25°C T _J =100°C	I _R			0.5 10		μA
Reverse recovery time	I _F =0.5A I _R =1A I _{RR} =0.25A	T _{RR}			35		ns
Typical capacitance	4V,1MHz	C _J			7		pF

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	ES1001FL-AU	ES1002FL-AU	ES1004FL-AU	ES1006FL-AU	Units
Typical Thermal Resistane	(Notes 1) R _{θJA} (Notes 2) R _{θJC}			200 30		°C/W
Operating junction and storage temperature range	T _J , T _{STG}			-55 to +150		°C

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

2.Mounted on a FR4 PCB, single-sided copper, with 10cm*10cm copper pad area.



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RATING AND CHARACTERISTIC CURVES

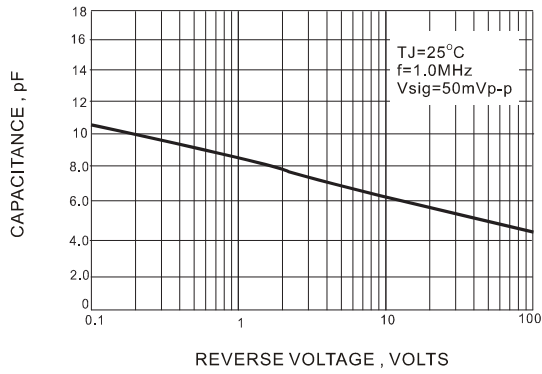


Fig. 1-TYPICAL JUNCTION CAPACITANCE

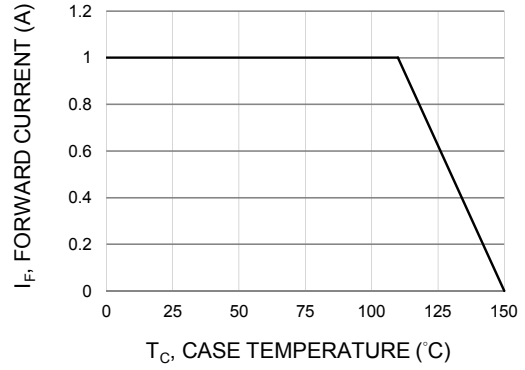


Fig. 2-FORWARD CURRENT DERATING CURVE

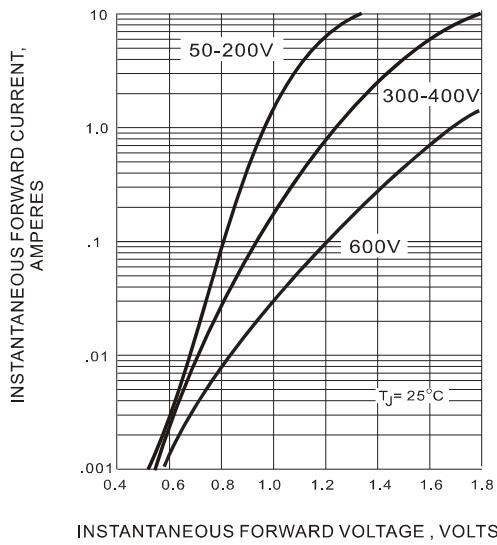


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

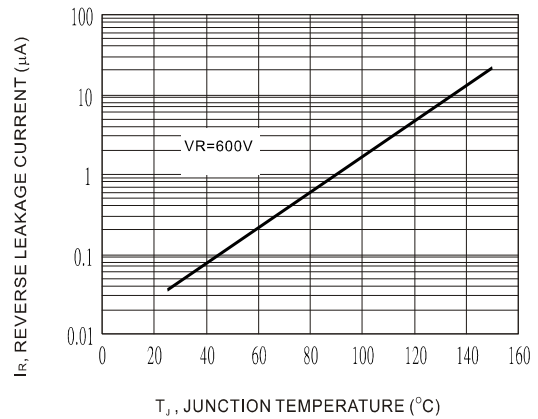
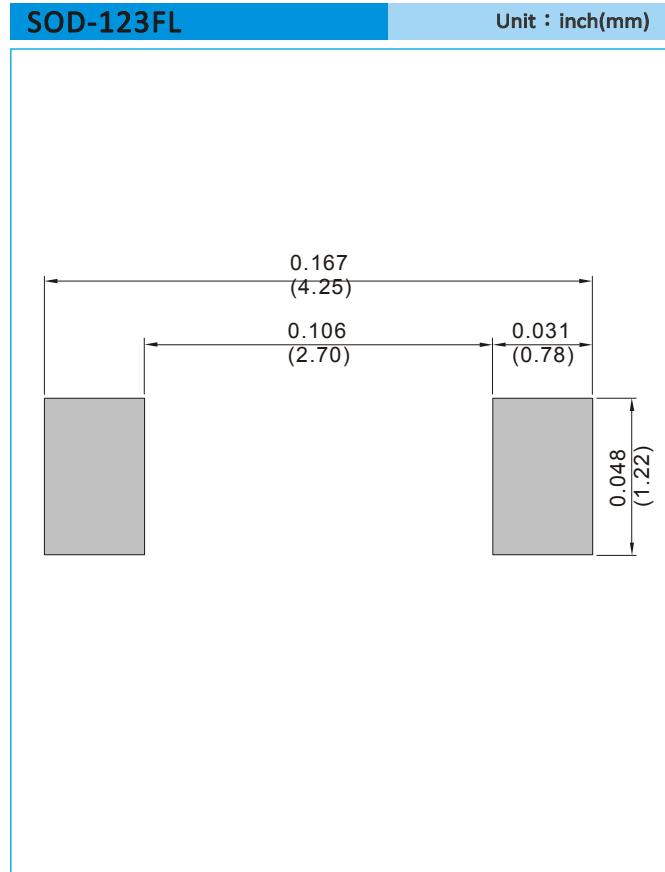


Fig. 4-TYPICAL LEAKAGE CURRENT vs JUNCTION TEMPERATURE



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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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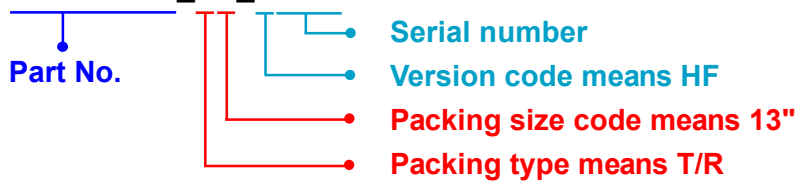
Part No_packing code_Version

ES1001FL-AU_R1_000A1

ES1001FL-AU_R2_000A1

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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