

ES1001FL~ES1006FL

SMALL SURFACE MOUNT SUPER FAST DIODES

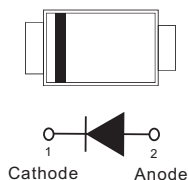
VOLTAGE 100 to 600 Volts **CURRENT** 1.0 Amperes

FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated
- High temperature soldering : 260°C / 10 seconds at terminals
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

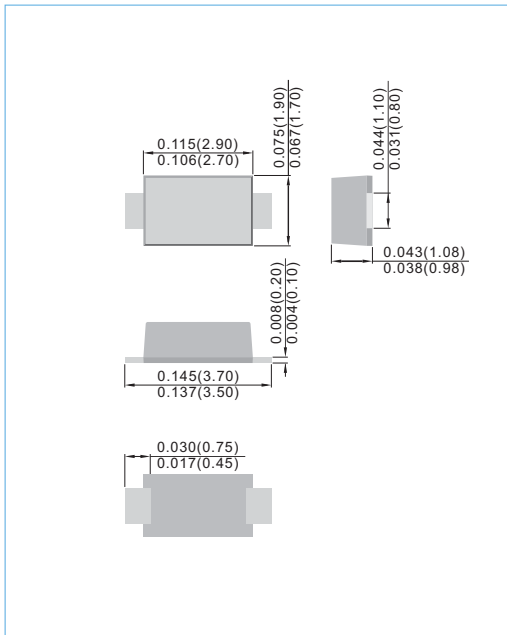
MECHANICAL DATA

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



SOD-123FL

Unit : inch(mm)



ABSOLUTE RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Test condition	Symbol	ES1001FL	ES1002FL	ES1004FL	ES1006FL	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_R	100	200	400	600	V
Maximum average forward current	$T_L=120^{\circ}C$	$I_{F(AV)}$	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	1.0A	V_F	0.95		1.25	1.7	V
Maximum DC reverse current at rated DC blocking voltage	$T_J=25^{\circ}C$ $T_J=100^{\circ}C$	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	ES1002FL	ES1004FL	ES1006FL	Units
Thermal resistance junction to ambient air	$R_{\theta JA}$ $R_{\theta NC}$	165 20				$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150				$^{\circ}C$

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RATING AND CHARACTERISTIC CURVES

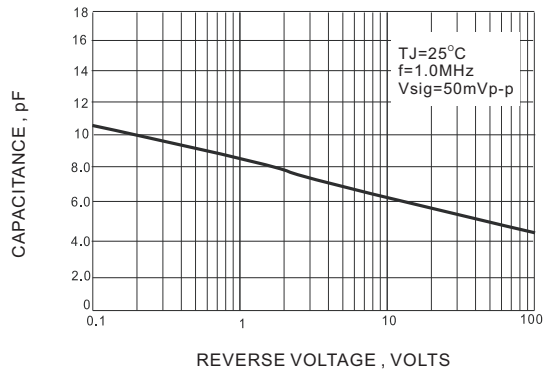


Fig. 1-TYPICAL JUNCTION CAPACITANCE

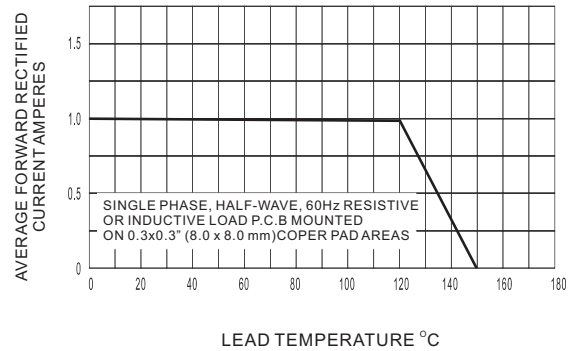


Fig. 2-AXIMUM AVERAGE FORWARD CURRENT DERATING

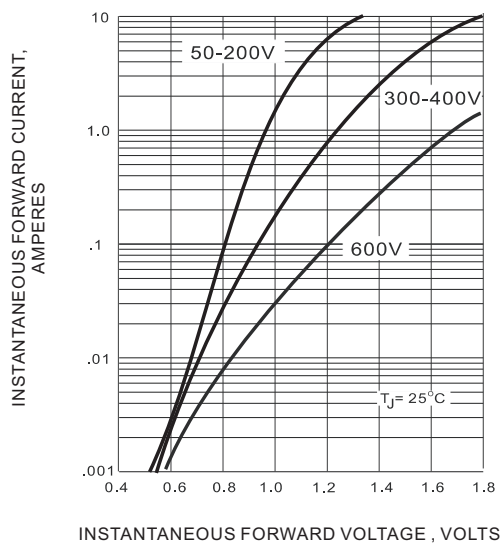


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

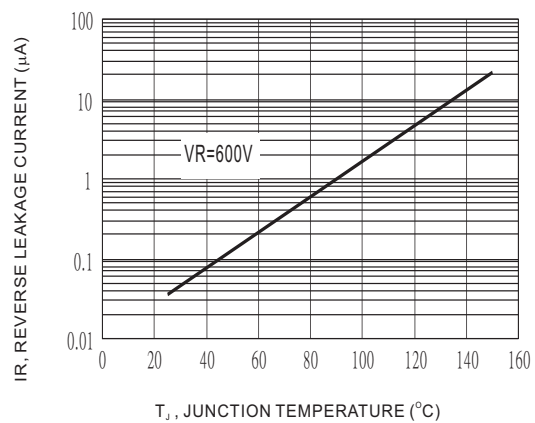
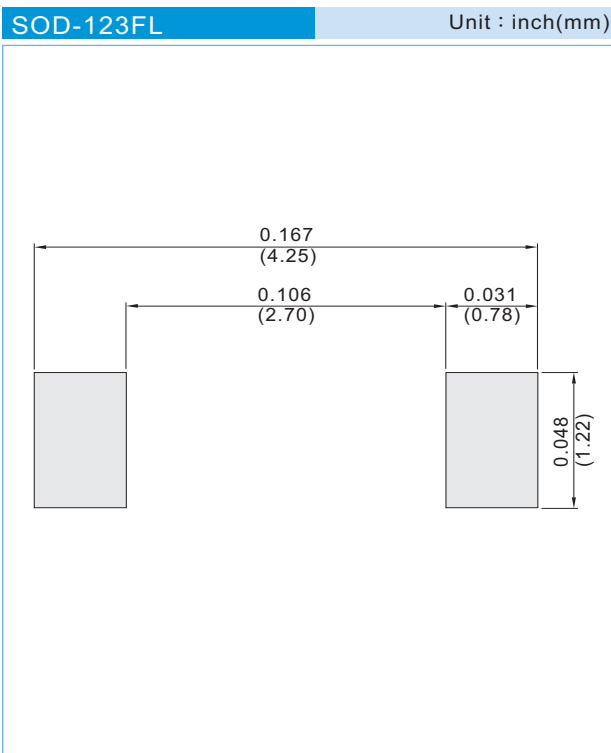


Fig. 4-TYPICAL LEAKAGE CURRENT vs JUNCTION TEMPERATURE

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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

LEGAL STATEMENT

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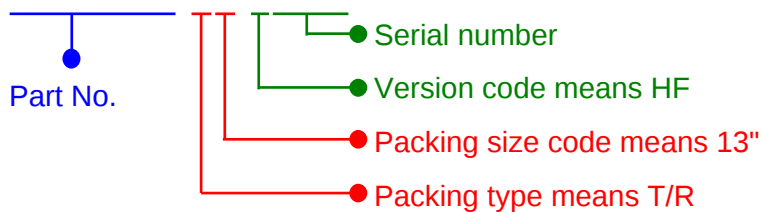
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Part No_packing code_Version

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
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			