



ES1001FL~ES1006FL

SMALL SURFACE MOUNT ULTRAFAST DIODES

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

SOD-123FL

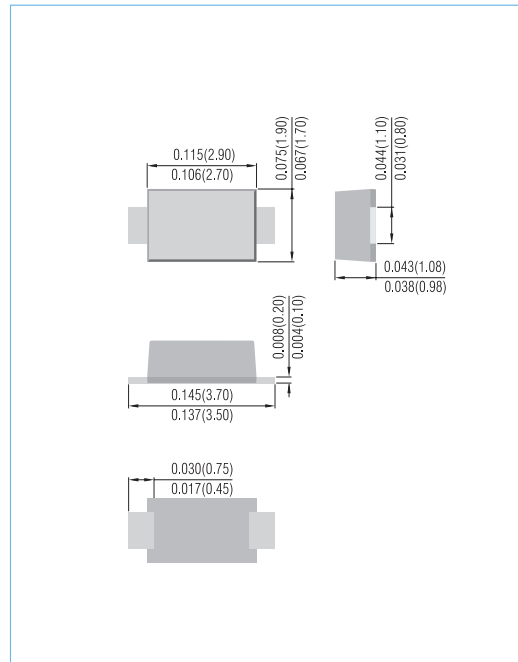
Unit: inch (mm)

FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated
- High temperature soldering : 26°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: 0.0168 gram
- Polarity : Color band cathode



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_{DC}	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			1 150		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	$R_{\theta JA}$	180				$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150				$^\circ C$



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RATING AND CHARACTERISTIC CURVES

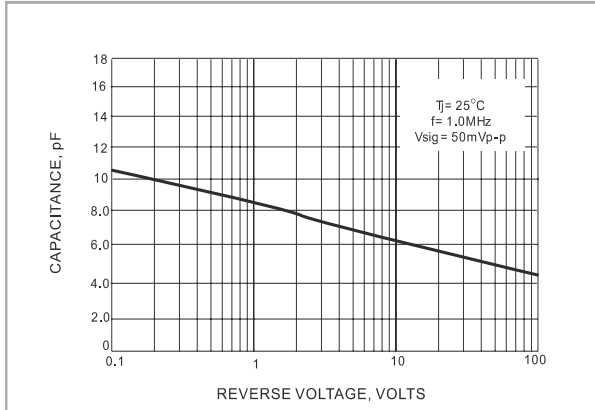


FIG.1 TYPICAL JUNCTION CAPACITANCE

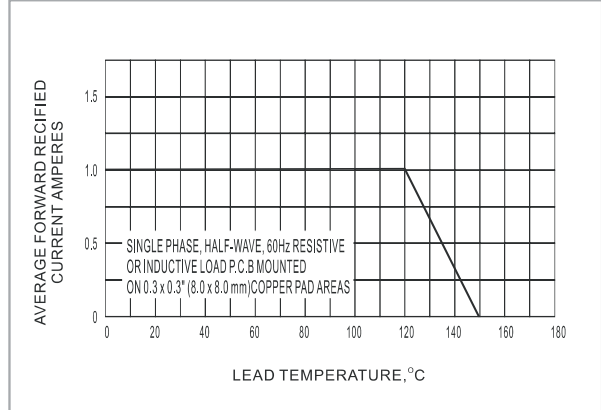


FIG.2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

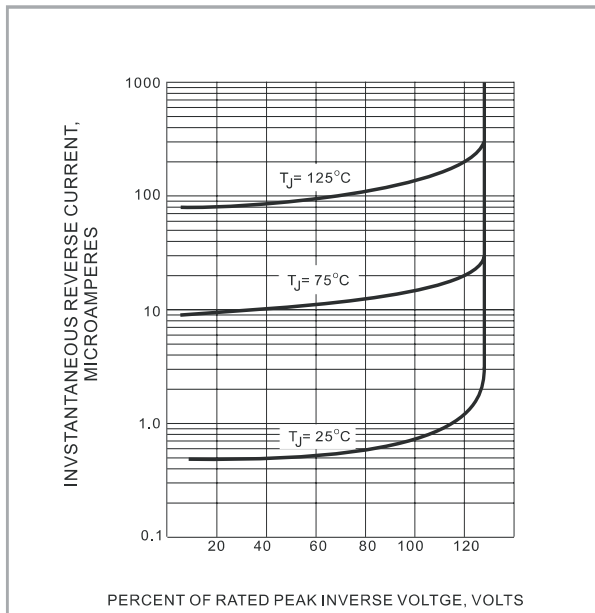


FIG.3 TYPICAL REVERSE CHARACTERISTICS

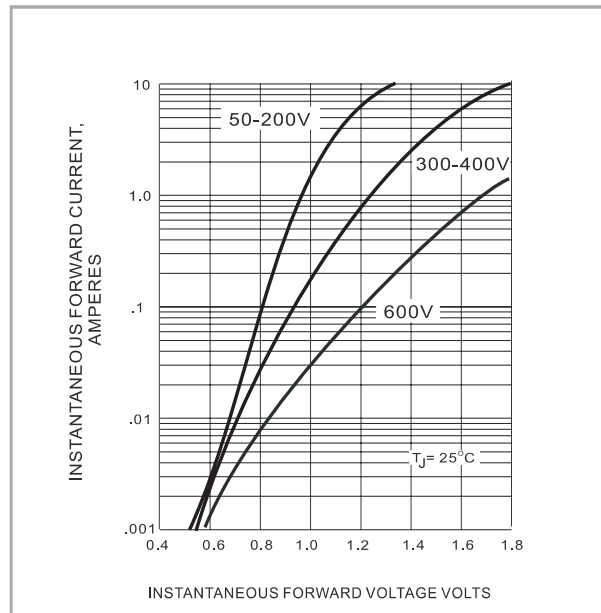


FIG.4 TYPICAL FORWARD CHARACTERISTICS

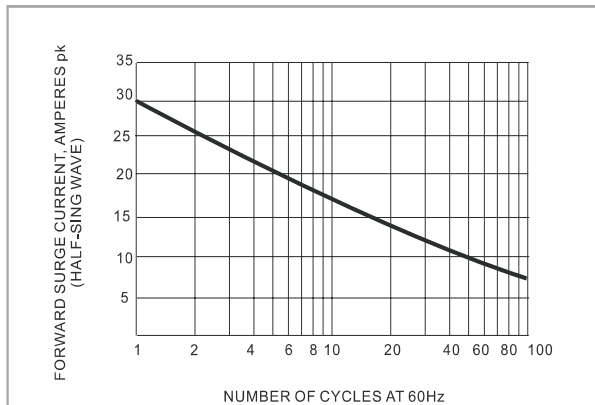


FIG.5 MAXIMUM NON-REPETITIVE SURGE CURRENT

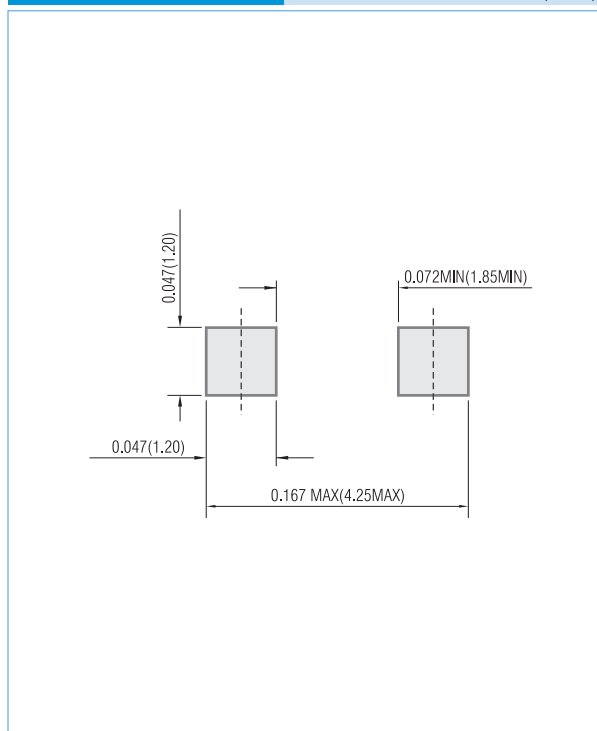


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MOUNTING PAD LAYOUT

SOD-123FL

Unit: inch (mm)



ORDER INFORMATION

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

LEGAL STATEMENT

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