



# ES1001FL~ES1002FL

## SMALL SURFACE MOUNT ULTRAFAST DIODES

**VOLTAGE** 100 to 200 Volts **CURRENT** 1.0 Amperes

SOD-123FL/DO-219AB

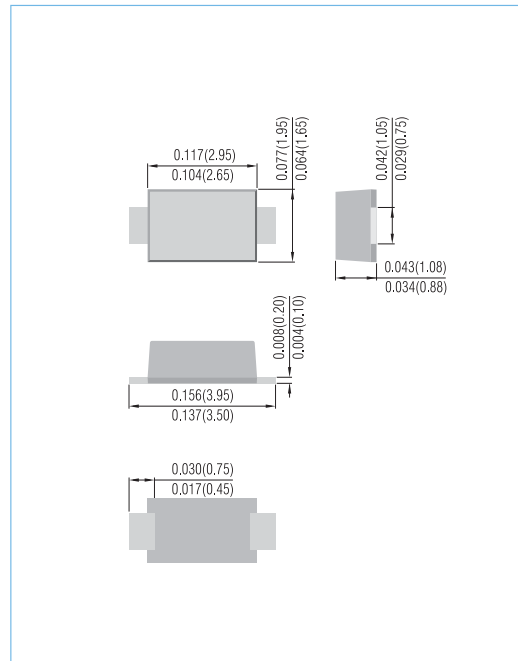
Unit: inch (mm)

### FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated
- High temperature soldering : 26°C / 10 seconds at terminals
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

- Case: JEDEC DO-219AB, Molded plastic over passivated junction.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes positive end (cathode)
- Standard Packaging : 8mm tape (EIA-481)
- Approx. Weight: 0.0168 gram



### MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	Test condition	Symbol	ES1001FL	ES1002FL	UNITS
Maximum repetitive peak reverse voltage		$V_{RRM}$	100	200	V
Maximum RMS voltage		$V_{RMS}$	70	140	V
Maximum DC blocking voltage		$V_{DC}$	100	200	V
Maximum average forward rectified current	$T_{ip}=105^{\circ}C$ $T_A=65^{\circ}C$	$I_{F(AV)}$	1.2	0.5	A
Peak forward surge current 8.3ms single half sine-wave	$T_L=25^{\circ}C$	$I_{FSM}$	16.5		A
Operating junction and storage temperature range		$T_J, T_{STG}$	-50 to +150		°C

### ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	Test condition	Symbol	ES1001FL	ES1002FL	UNITS
Maximum instantaneous forward voltage	1.0A	$V_F$	0.95		V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$ $T_A=100^{\circ}C$	$I_R$	10	50	uA
Reverse recovery time	$I_F=0.5A$ $I_R=1A$ $t_{rr}=0.25A$	$t_{rr}$	35		ns
Typical capacitance	4V,1MHz	$C_J$	4		pF



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## THERMAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	Test condition	Symbol	ES1001FL	ES1002FL	UNITS
Thermal resistance junction to ambient air		$R_{\theta JA}$	180		°C/W

## RATING AND CHARACTERISTIC CURVES

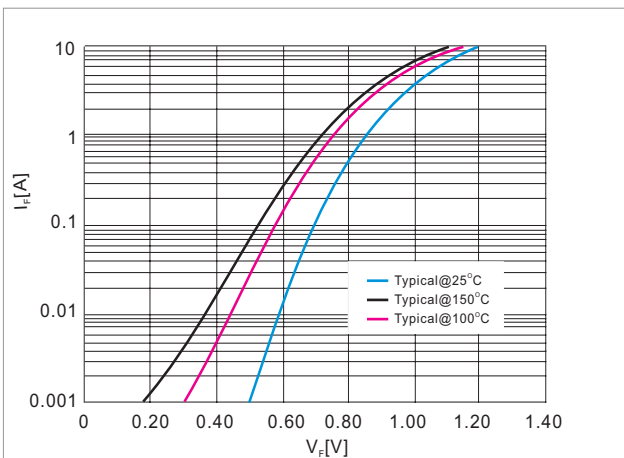


Fig.1-Typical forward characteristics

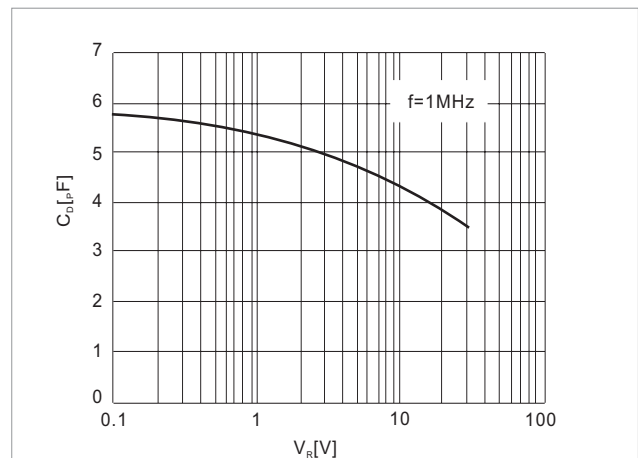


Fig.3-Typ. diode capacitance vs. Reverse voltage

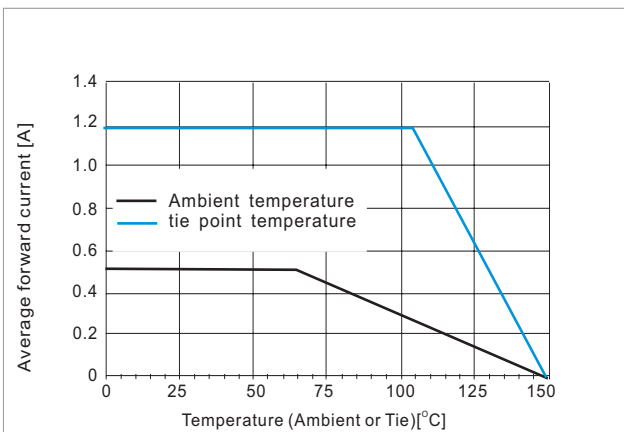


Fig.2-Forward current derating curve

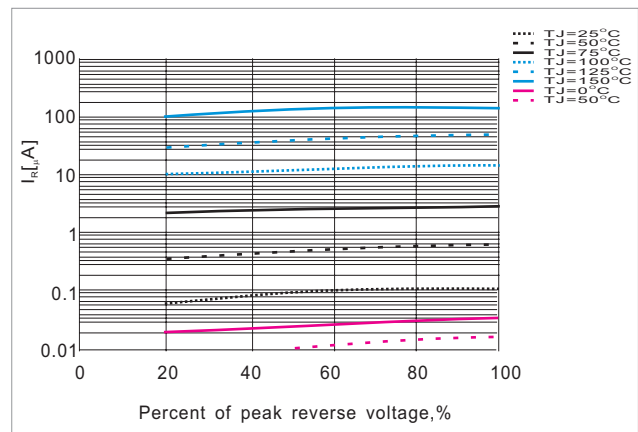
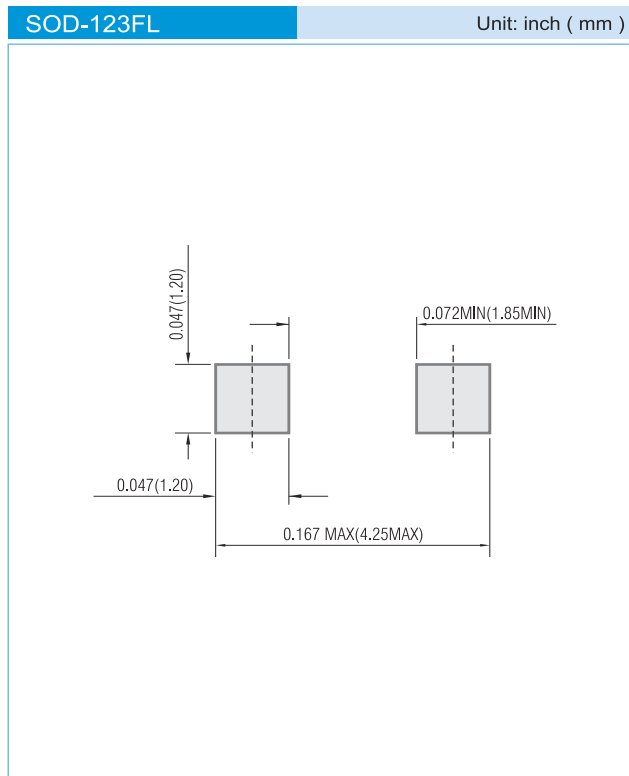


Fig.4-Typical reverse characteristics



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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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