



# US1001FL~US1008FL

## SMALL SURFACE MOUNT ULTRA FAST DIODES

**VOLTAGE** 100 to 800 Volts **CURRENT** 1.0 Amperes

SOD-123FL/DO-219AB

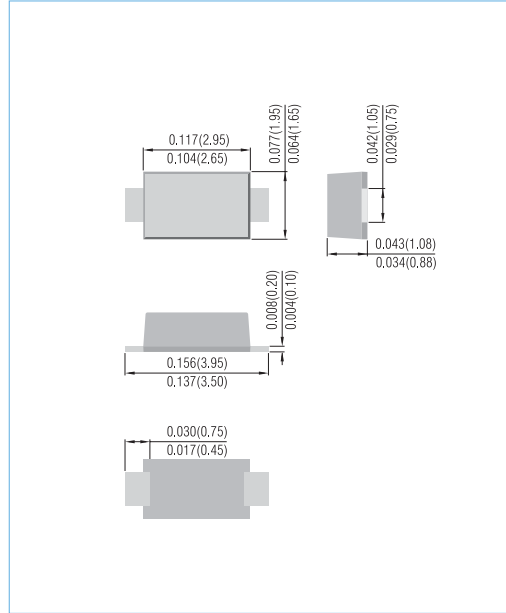
Unit: inch ( mm )

### FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated Chip Junction
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product : 99% Sn 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



### ABSOLUTE MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	Symbol	US1001FL	US1002FL	US1004FL	US1006FL	US1008FL	Units
Marking Code		U1B	U1D	U1G	U1J	U1K	
Maximum repetitive 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	$V_{DC}$	100	200	400	600	800	V
Maximum average forward rectified current	$T_{IP}=65^{\circ}C$ $T_A=45^{\circ}C$ $I_{F(AV)}$	1.4			0.5		A
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$ $T_A=125^{\circ}C$ $I_R$	10			50		$\mu A$
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 TO + 150					$^{\circ}C$

### ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	Symbol	US1001FL	US1002FL	US1004FL	US1006FL	US1008FL	Units
Maximum instantaneous forward voltage	0.7A $V_F$	1		1.4	1.7		V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$ $T_A=125^{\circ}C$ $I_R$	10			50		$\mu A$
Reverse recovery time at $I_F=0.5A, I_R=1A, I_{tr}=0.25A$	$t_{rr}$	50			100		ns
Typical capacitance	4V,1MHz $C_J$	9					pF

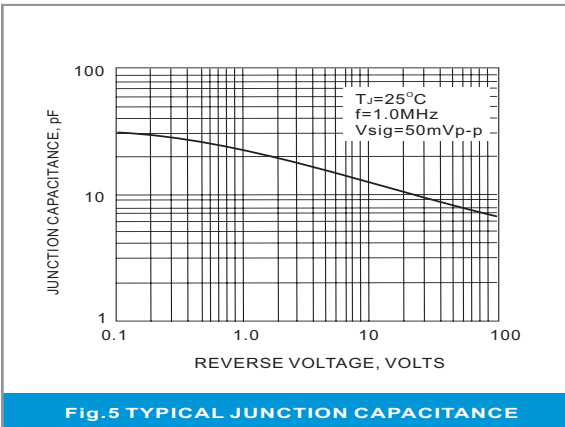
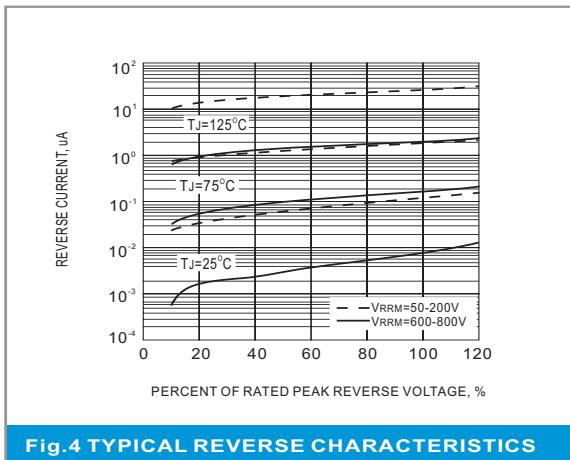
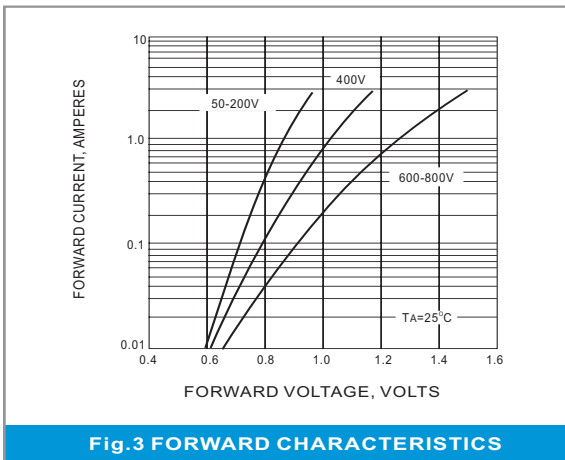
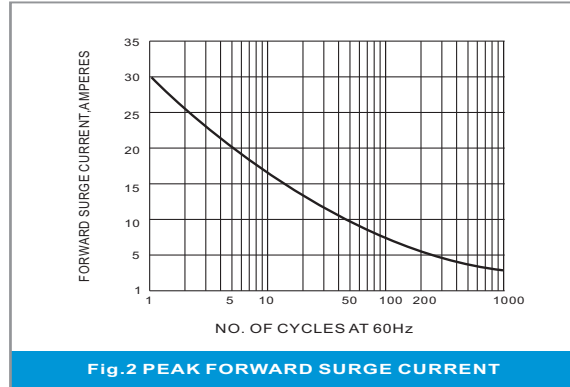
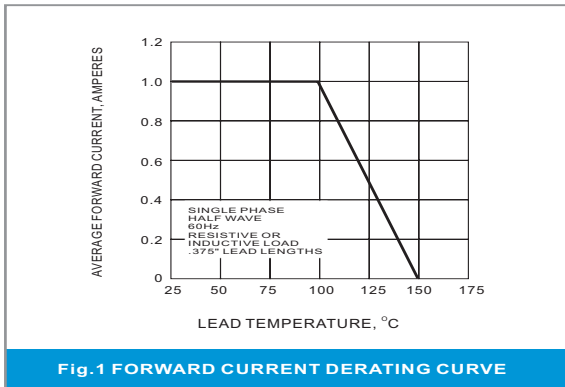


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## THERMAL CHARACTERISTICS

PARAMETER	Symbol	US1001FL	US1002FL	US1004FL	US1006FL	US1008FL	Units	
Thermal resistance junction to ambient air	$R_{\theta JA}$	180						$^{\circ}C/W$

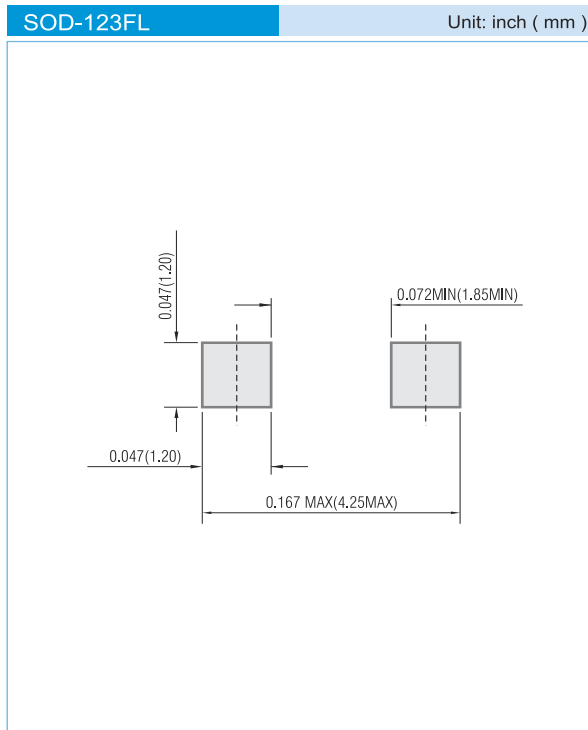
### RATING AND CHARACTERISTIC CURVES





## US1001FL~US1008FL

### 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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