



FR101FL THRU FR107FL

SURFACE MOUNT FAST DIODES

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

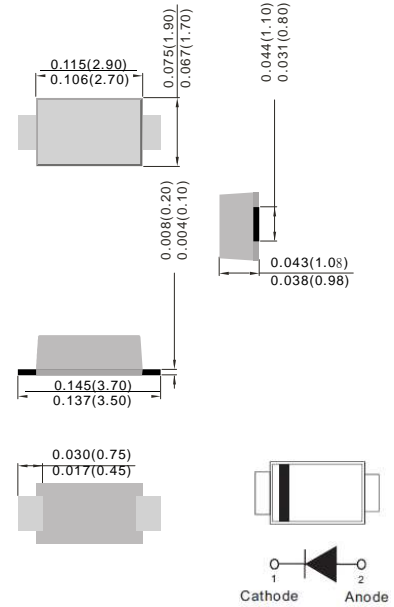
FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass passivated die construction
- High temperature soldering : 260°C / 10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case : JEDEC SOD-123FL, Molded plastic over passivated junction
- Terminals : Solderable per MIL-STD-750, Method 2026
- Standard Packaging : 8mm tape (EIA-481)
- Apprx. Weight: 0.0006 ounce, 0.0172 gram
- Polarity : Color band cathode

SOD-123FL



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%_F

Rating	Test condition	Symbol	FR101FL	FR102FL	FR103FL	FR104FL	FR105FL	FR106FL	FR107FL	Units	
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	V	
Maximum average forward rectified current Derate above $T = 110^{\circ}C$		$I_{F(AV)}$	1.0								A
Maximum instantaneous forward voltage	0.7A 1.0A	V				1.15 1.30				V	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}				30				A	
Maximum DC reverse current at rated DC blocking voltage	$T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I_R				1.0 50				μA	
Typical capacitance	4V,1MHz	C				9				pF	
Reverse recovery time	$I_F=0.5A$ $I_R=1A$ $I_T=0.25A$					150	250	500		nS	
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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RATINGS AND CHARACTERISTIC CURVES

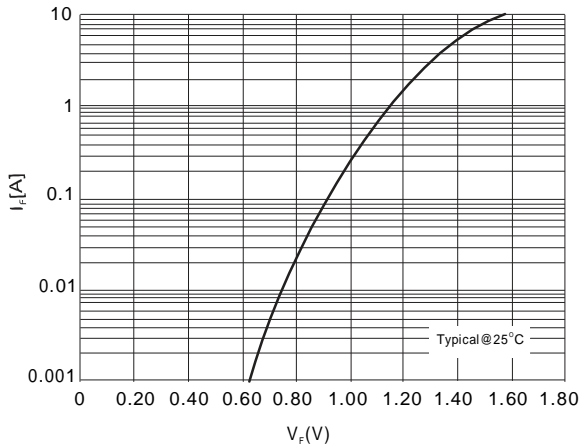


Fig.1-TYPICAL FORWARD CHARACTERISTICS

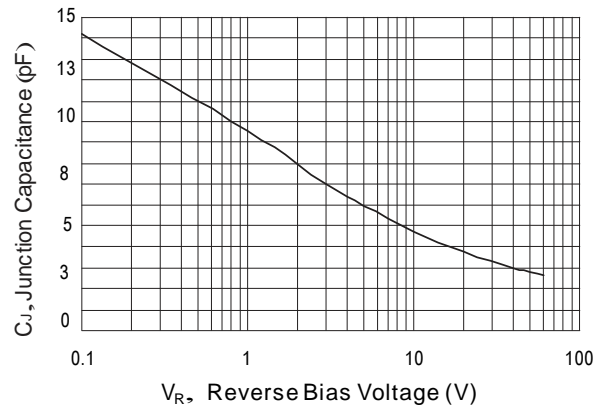


Fig.2-TYPICAL JUNCTION CAPACITANCE

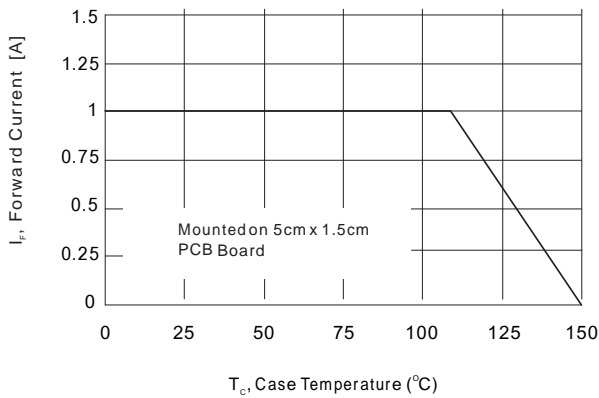


Fig.3-FORWARD CURRENT DERATING CURVE

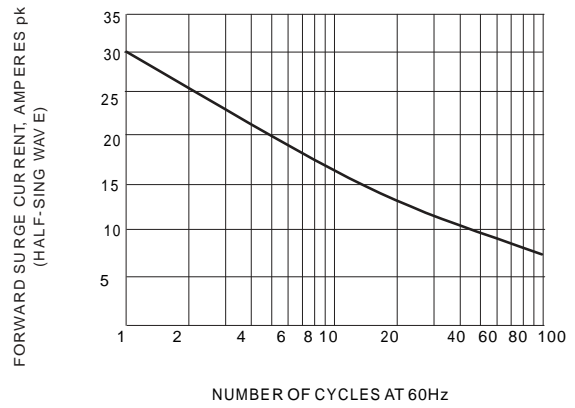
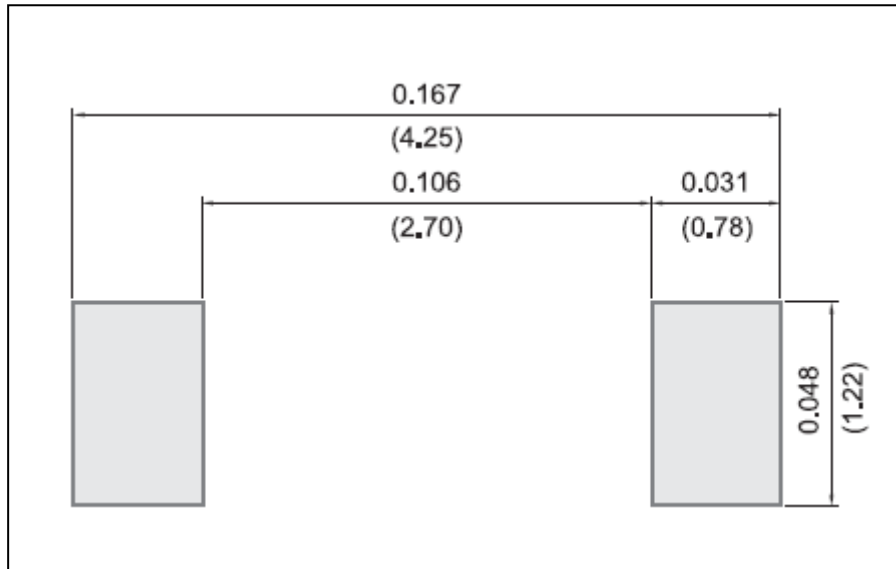


Fig.4-MAXIMUM NON-REPEITIVE SURGE CURRENT

MOUNTING PAD LAYOUT

SOD-123FL (inch/mm)



ORDER INFORMATION

Package :

T/R 3K per 7 inch Reel

T/R 10K per 10 inch Reel