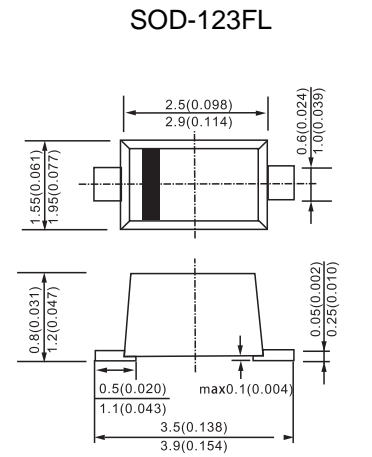


FEATURES

- 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 SOD-123FL, 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 AND 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 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	$I_{F(AV)}$	1.4				0.5		A
	$T_{IP}=65^{\circ}C$ $T_A=45^{\circ}C$							
Maximum DC reverse current at rated DC blocking voltage	I_R	10				50		μA
	$T_A=25^{\circ}C$ $T_A=125^{\circ}C$							
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	V_F	1		1.4	1.7		V	
	0.7A							
Maximum DC reverse current at rated DC blocking voltage	I_R	10				50		μA
	$T_A=25^{\circ}C$ $T_A=125^{\circ}C$							
Reverse recovery time at $I_F=0.5A, I_R=1A, I_{tr}=0.25A$	t_{rr}	50				100		ns
Typical capacitance	C_J	9						pF
	4V, 1MHz							

RATINGS AND CHARACTERISTIC CURVES

US1001FL THRU US1008FL

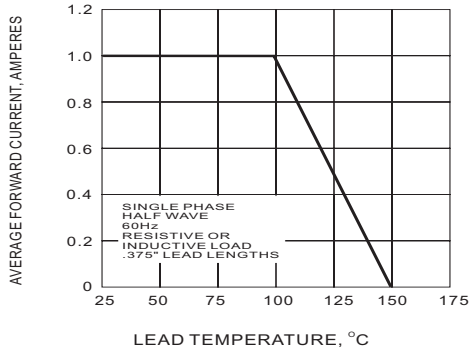


Fig.1 FORWARD CURRENT DERATING CURVE

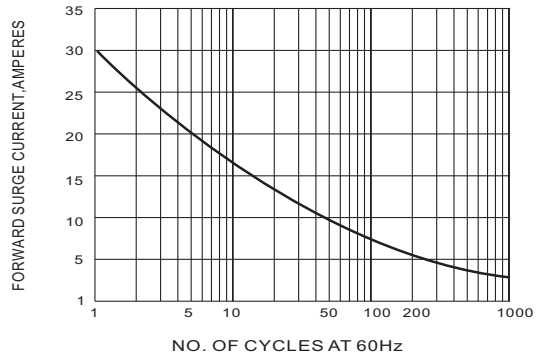


Fig.2 PEAK FORWARD SURGE CURRENT

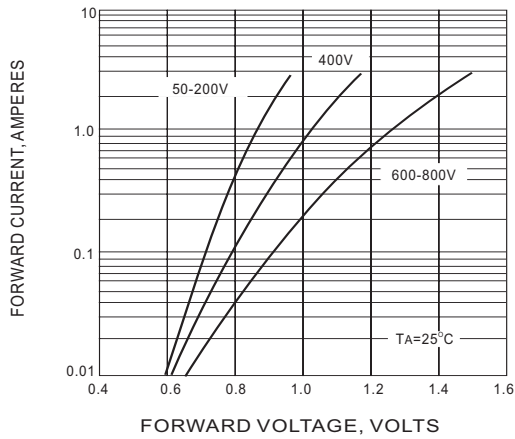


Fig.3 FORWARD CHARACTERISTICS

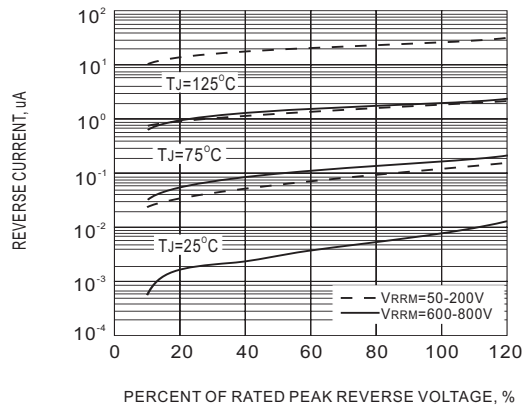


Fig.4 TYPICAL REVERSE CHARACTERISTICS

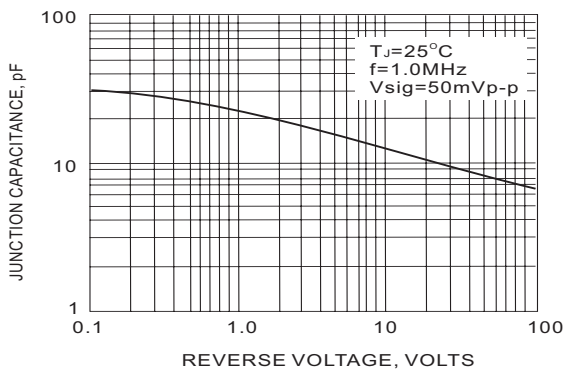


Fig.5 TYPICAL JUNCTION CAPACITANCE