

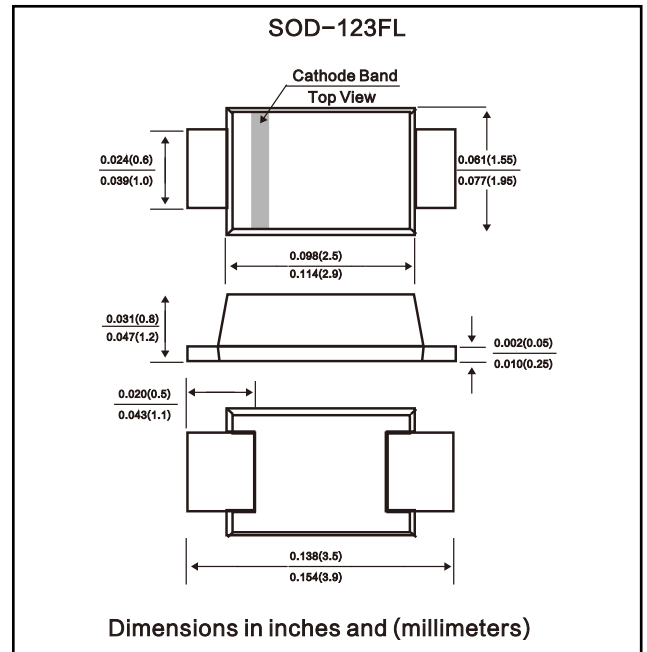
SURFACE MOUNT RECTIFIER

FEATURES

- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current
- Metallurgically bonded construction
- High temperature soldering:
/10 seconds at terminals

Mechanical Data

Case: JEDEC SOD-123FL, molded plastic over passivated chip
 Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode end
 Weight: 0.003 ounces, 0.01 gram
 Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Test condition	Symbol	ES1001FL	ES1002FL	ES1004FL	ES1006FL	Units
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		0.5	10		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

NOTES: 1. Averaged over any 20 ms period.
 2. Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.
 3. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

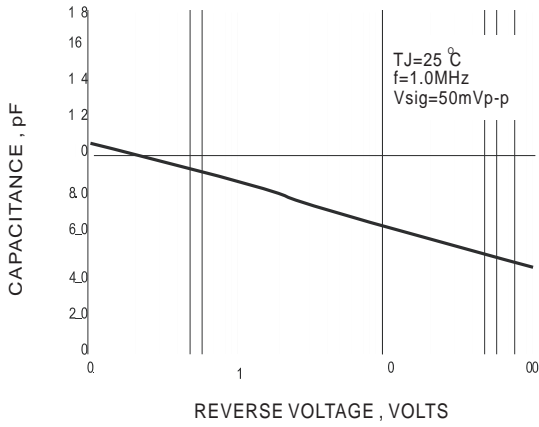


Fig.1-TYPICAL JUNCTION CAPACITANCE

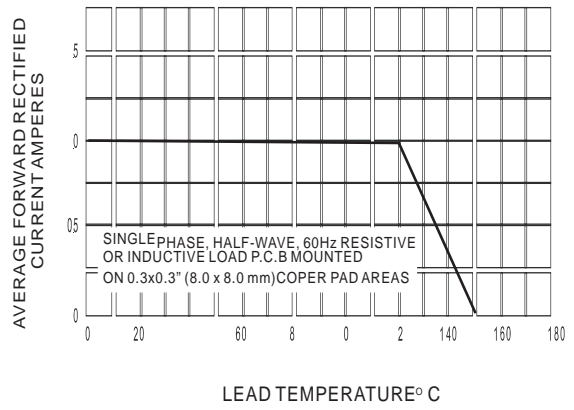


Fig.2-MAXIMUM AVERAGE FORWARD CURRENT DERATING

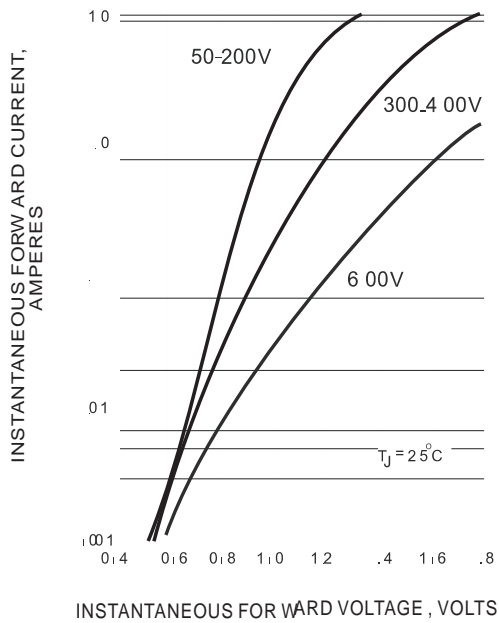


Fig.3-TYPICAL FORWARD CHARACTERISTICS

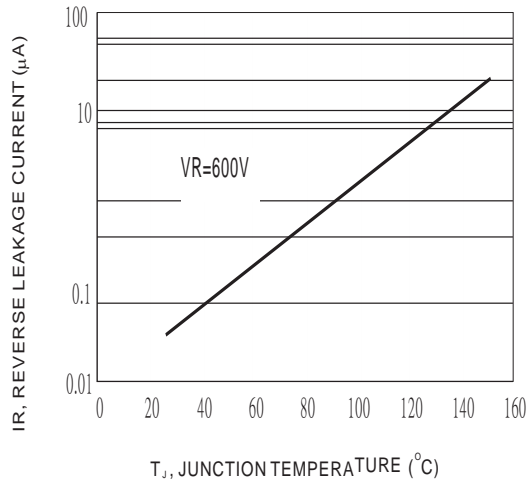


Fig.4-TYPICAL LEAKAGE CURRENT vs JUNCTION TEMPERATURE