Surface Mount Schottky Rectifier

Features

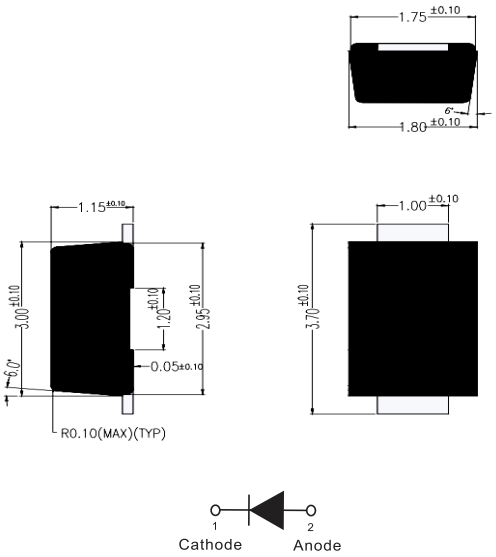
- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- AEC-Q101 qualified

Mechanical Data

- Package: SOD-123FL
- Terminals: Tin plated leads, solderable per
- Polarity: Cathode line denotes the cathode end

SOD-123FL

Unit : inch(mm)



Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Unit	SL24FLQ
Repetitive peak reverse voltage	V_{RRM}	V	40
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	2.0
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	40
Storage temperature	T_{stg}	℃	-55 ~+150
Junction temperature	Tj	℃	-55 ~+125

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SL24FLQ
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=2.0A	0.40
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_{RRM}	mA	T_a=25℃	1
			T_a=100℃	20

Thermal Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Unit	SL24FLQ
Thermal Resistance	$R_{\theta J-A}$	℃/W	70[1)]
	$R_{\theta J-L}$		20[1)]

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

Characteristics (Typical)

FIG. 1- FORWARD CURRENT DERATING CURVE

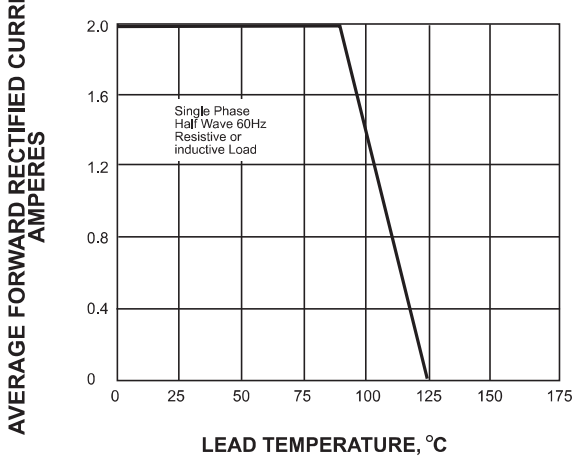


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

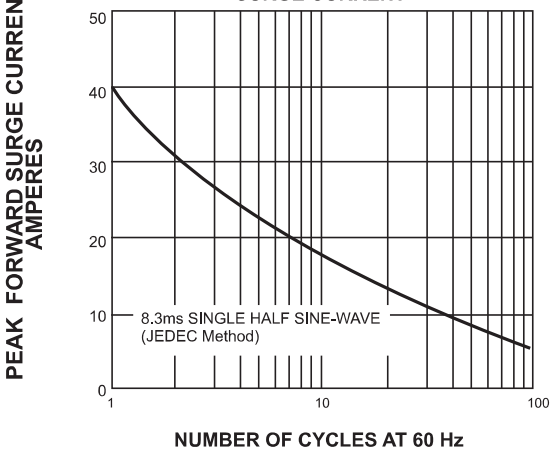


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

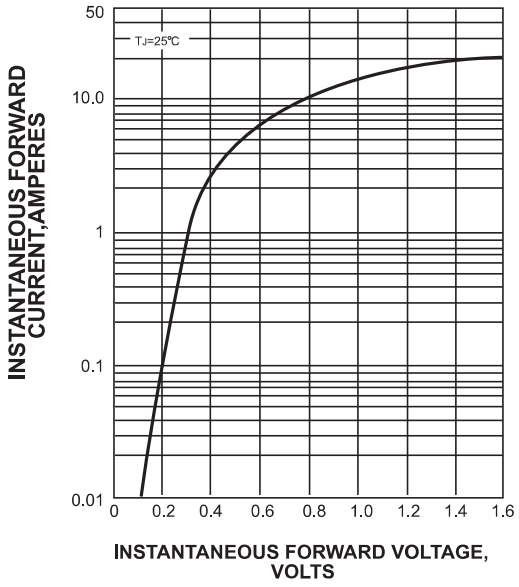


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

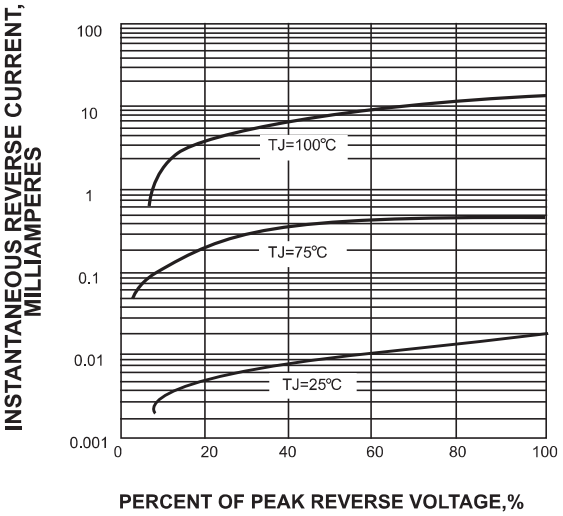


FIG. 5-TYPICAL JUNCTION CAPACITANCE

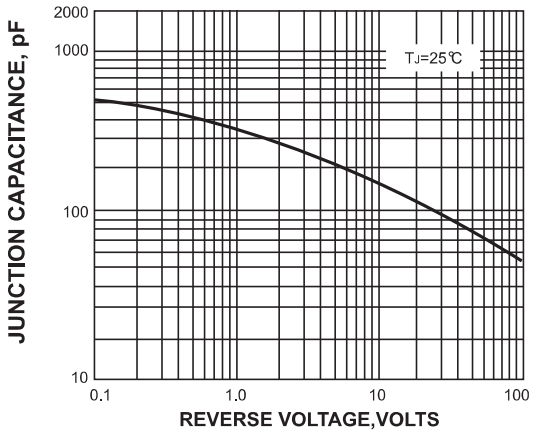


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE