

Surface Mount Schottky Rectifier

SOD-123FL

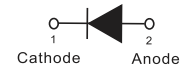
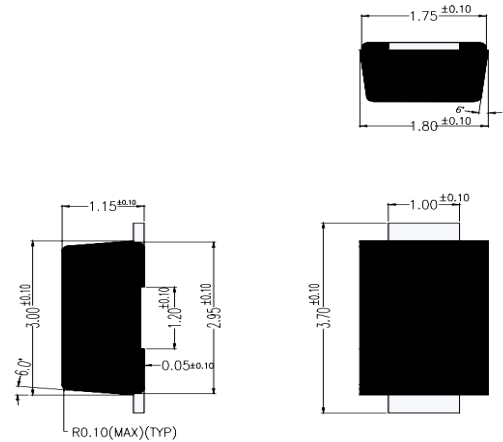
Unit : inch(mm)

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



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

Parameter	Symbol	Unit	SS12FLQ	SS13FLQ	SS14FLQ	SS15FLQ	SS16FLQ	SS18FLQ	SS110FLQ	SS115FLQ	SS120FLQ
Repetitive peak reverse voltage	VRRM	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	IO	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25°C	IFSM	A	30								
Storage temperature	Tstg	°C	-55 ~+150								
Junction temperature	Tj	°C	-55 ~+150						-55 ~+175		

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SS12FLQ	SS13FLQ	SS14FLQ	SS15FLQ	SS16FLQ	SS18FLQ	SS110FLQ	SS115FLQ	SS120FLQ
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=1.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA	Ta=25℃	0.50					0.10			
			Ta=100℃	10					5			



Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS12FLQ	SS13FLQ	SS14FLQ	SS15FLQ	SS16FLQ	SS18FLQ	SS110FLQ	SS115FLQ	SS120FLQ
Thermal Resistance	R θ J-A	$^{\circ}\text{C}/\text{W}$	70 ⁽¹⁾								
	R θ 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)

FIG1:Io-TL Curve

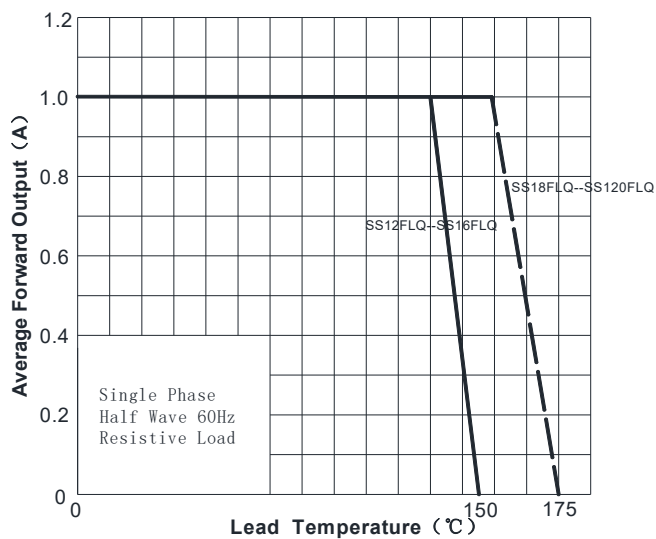


FIG2: Surge Forward Current Capability

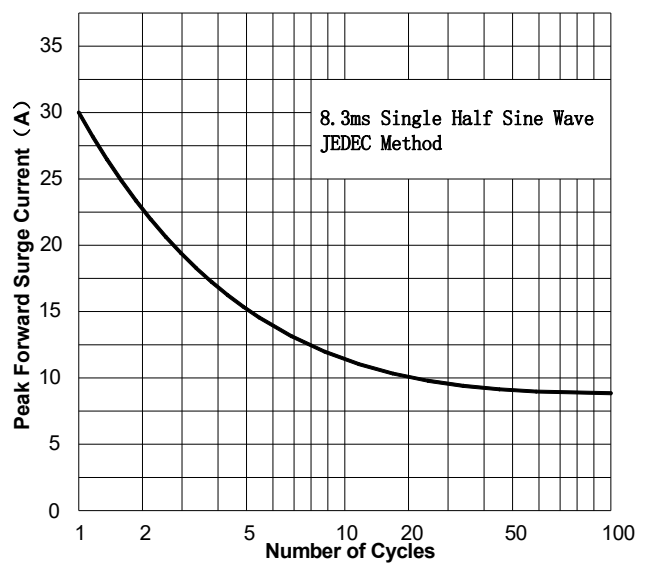


FIG3: Forward Voltage

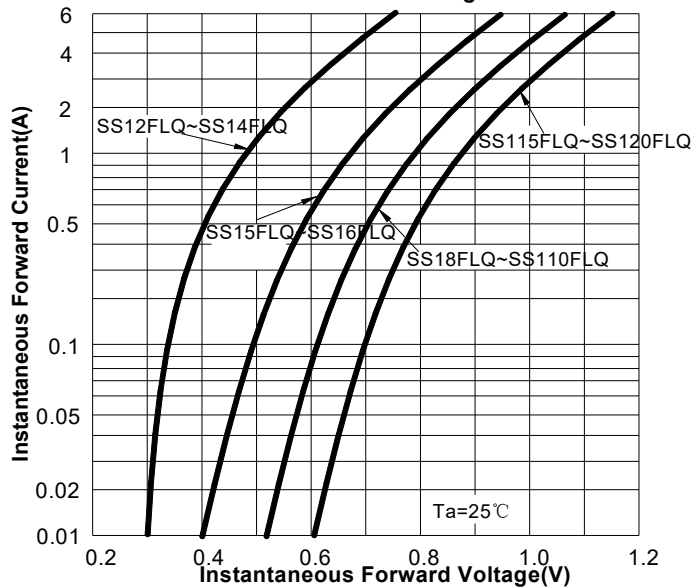


FIG4: Typical Reverse Characteristics

