

Surface Mount Schottky Rectifier

Features

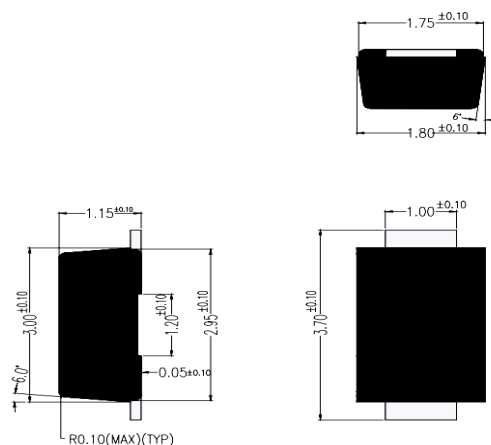
- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Mechanical Data

- package:SOD-123FL
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any

SOD-123FL

Unit : inch(mm)

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

Parameter	Symbol	Unit	SS12FL	SS13FL	SS14FL	SS15FL	SS16FL	SS18FL	SS110FL	SS115FL	SS120FL
Device marking code			SS12	SS13	SS14	SS15	SS16	SS18	SS110	SS115	SS120
Repetitive peak reverse voltage	V _{RRM}	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	I _O	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25℃	I _{FSM}	A	30								
Storage temperature	T _{stg}	℃	-55 ~+150								
Junction temperature	T _j	℃	-55 ~+150					-55 ~+175			

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

Parameter	Symbol	Unit	Test Conditions	SS12FL	SS13FL	SS14FL	SS15FL	SS16FL	SS18FL	SS110FL	SS115FL	SS120FL
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=1.0A$	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_{RRM}	mA	$T_a=25^{\circ}C$	0.50					0.10			
			$T_a=100^{\circ}C$	10					5			



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

Parameter	Symbol	Unit	SS12FL	SS13FL	SS14FL	SS15FL	SS16FL	SS18FL	SS110FL	SS115FL	SS120FL
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	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)

FIG1: Io-TL Curve

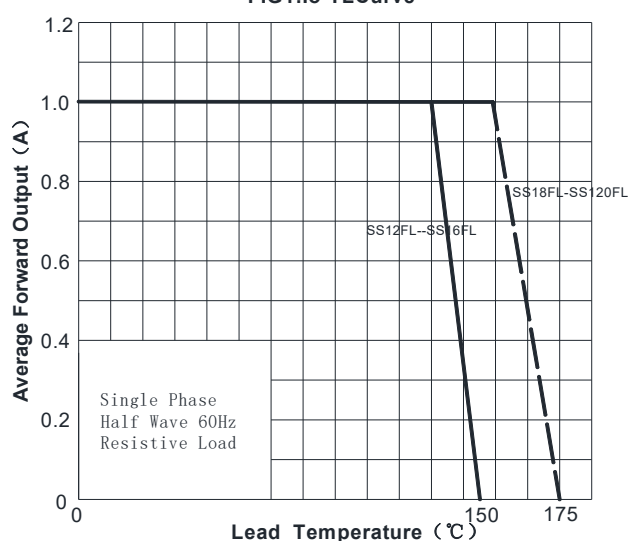


FIG2: Surge Forward Current Capability

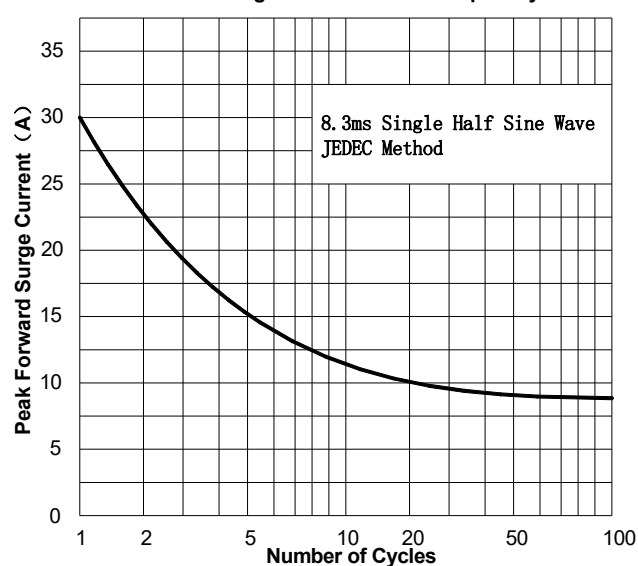


FIG3: Forward Voltage

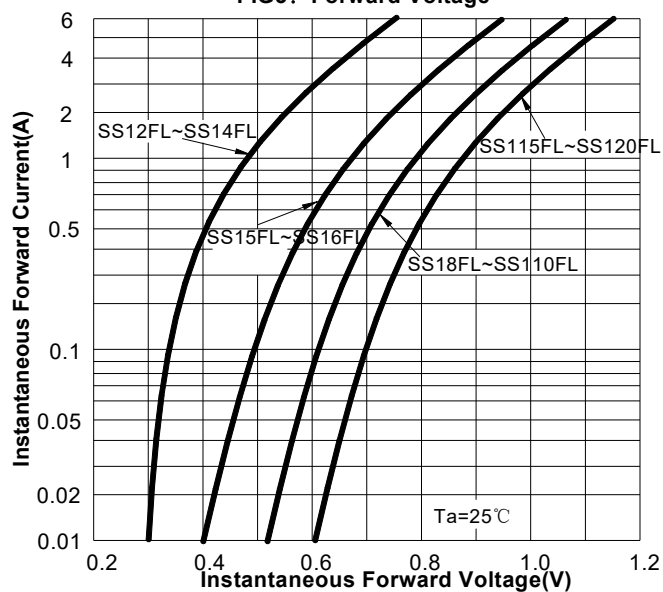


FIG4: Typical Reverse Characteristics

