

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
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Mechanical Data

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

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

Parameter	Symbol	Unit	SS32 FLQ	SS33 FLQ	SS34 FLQ	SS35 FLQ	SS36 FLQ	SS38 FLQ	SS310 FLQ	SS315 FLQ	SS320 FLQ
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	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, Tj=25℃	IFSM	A	80								
Storage temperature	Tstg	℃	-55 ~+150								
Junction temperature	Tj	℃	-55 ~+150						-55 ~+175		
Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C	Cj	pF	165								

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

Parameter	Symbol	Unit	Test Conditions	SS32 FLQ	SS33 FLQ	SS34 FLQ	SS35 FLQ	SS36 FLQ	SS38 FLQ	SS310 FLQ	SS315 FLQ	SS320 FLQ
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=3.0A	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℃	0.5					0.1			
			Ta=100℃	10					5			



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

Parameter	Symbol	Unit	SS32 FLQ	SS33 FLQ	SS34 FLQ	SS35 FLQ	SS36 FLQ	SS38 FLQ	SS310 FLQ	SS315 FLQ	SS320 FLQ
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	70 ¹⁾								
	$R_{\theta J-L}$		25 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

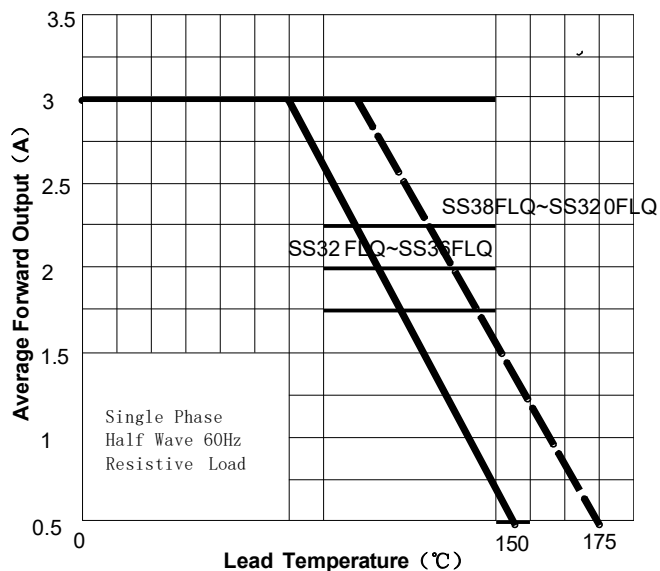


FIG2: Surge Forward Current Capability

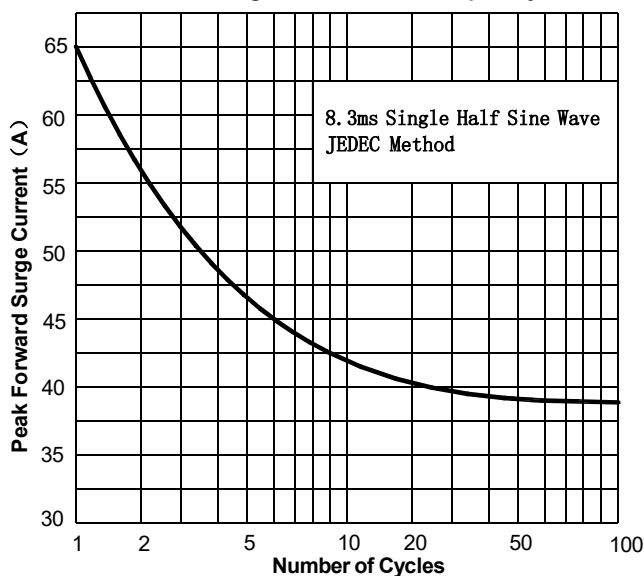


FIG3: Forward Voltage

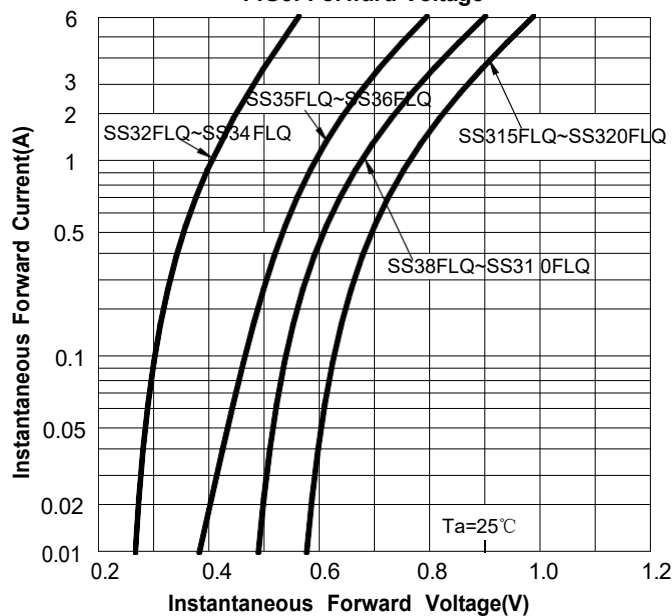
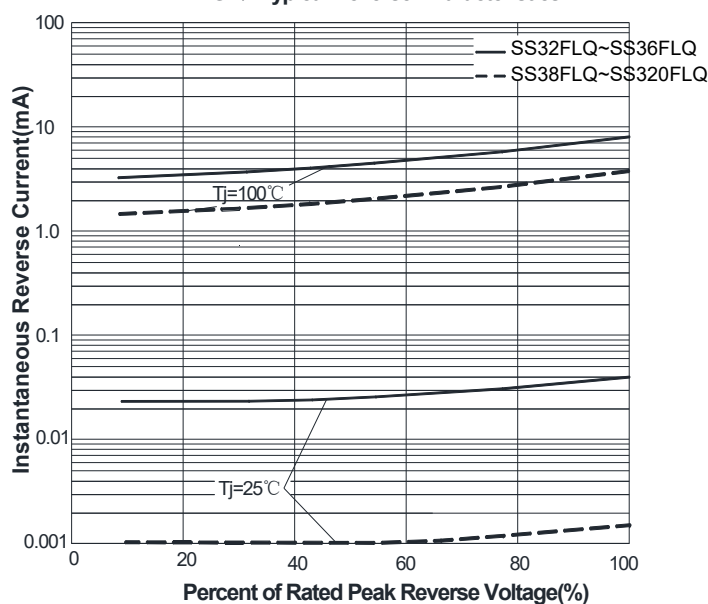


FIG4: Typical Reverse Characteristics





Dimensions (SOD-123FL)

Dim	Inches		Millimeters	
	Min	Max	Min	Max
A	0.138	0.154	3.50	3.90
B	0.114	0.122	2.90	3.10
C	0.067	0.079	1.70	2.00
D	0.033	0.041	0.85	1.05
E	0.041	0.049	1.05	1.25
F	0.017	0.033	0.43	0.83
G	0.004	0.010	0.10	0.25

Cathode Band
(for uni-directional products only)

Dimensions in inches and
(millimeters)

Soldering footprint