FSL13

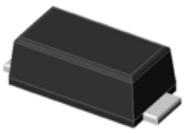
Surface Mount Schottky Rectifier

Reverse Voltage 30V Forward Current 1A

Features

- Super Low VF Schottky barrier diodes
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260℃/10 seconds
- Halogen-free according to IEC 61249-2-21 definition

RoHS COMPLIANT



eSGA
(SOD-123FL)

Typical Applications

For use of fast swiching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

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

Parameter	Symbol	FSL13	Unit
Maximum repetitive peak reverse voltage	VRRM	30	V
Maximum RMS voltage	VRMS	21	V
Maximum DC blocking voltage	VDC	30	V
Maximum average forward rectified current	IF(AV)	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	40	A
Operating junction temperature range	T_J	-55 to +125	°C
Storage temperature range	T_{STG}	- 55 to + 150	°C

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

Parameter	Test Conditions	Symbol	Typ.	Max	Unit
Instantaneous forward voltage	0.5A,TA=25℃	V_F	0.35	-	Volts
	1 A,TA=25℃		0.38	0.42	
Reverse current at rated DC blocking voltage	TA=25℃	I_R	0.067	0.5	mA
	TA=100℃		5.28	30	
Typical junction capacitance	4.0 V, 1 MHz	C_J	85		pF
Typical thermal resistance[1)]	juntion to ambient	$R_{\theta JA}$	100		℃/W
	juntion to case	$R_{\theta JC}$	50		
	juntion to mount	$R_{\theta JM}$	25		

Note:1),The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 5×5mm copper pads,2 OZ,FR4 PCB

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

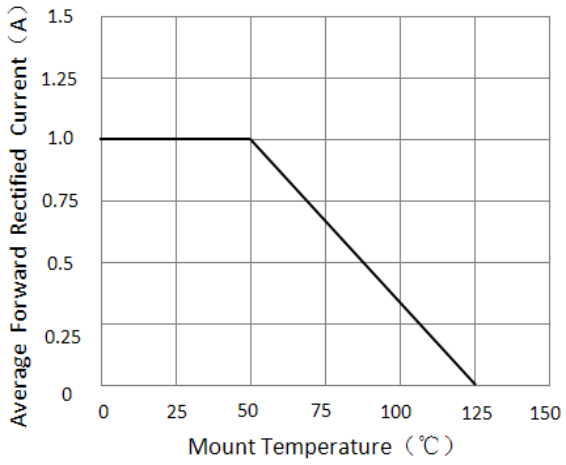


Figure 1.Forward Current Derating Curve

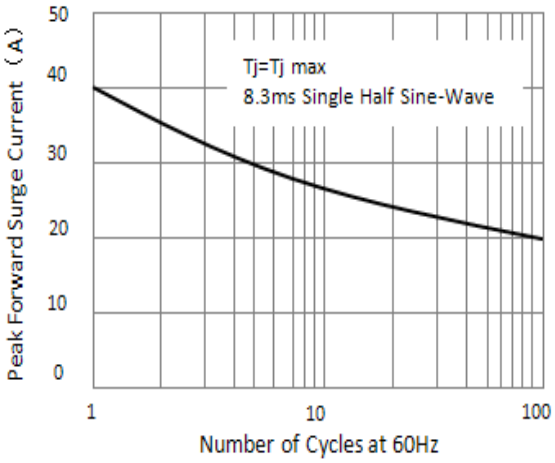


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

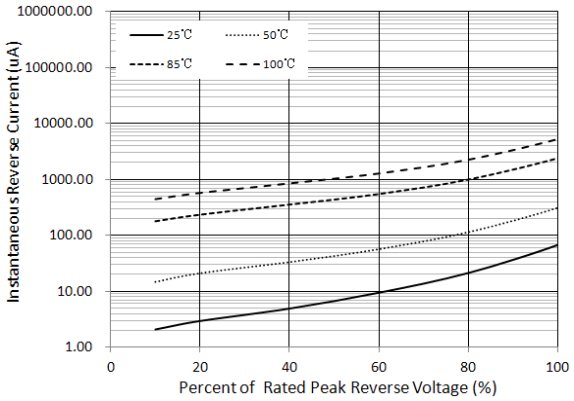


Figure 3. Typical Reverse Characteristics

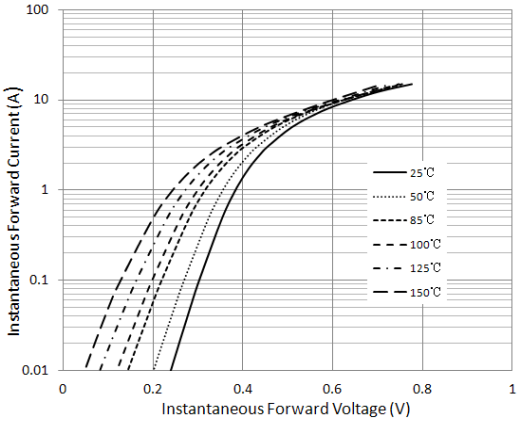


Figure 4. Typical Instantaneous Forward Characteristics

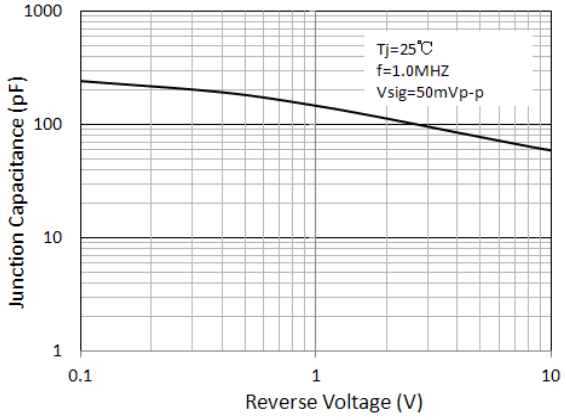
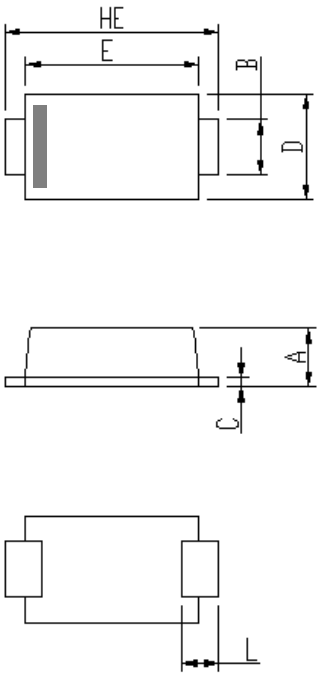


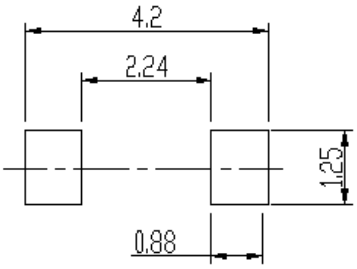
Figure 5. Typical Junction Capacitance

Package Outline Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint

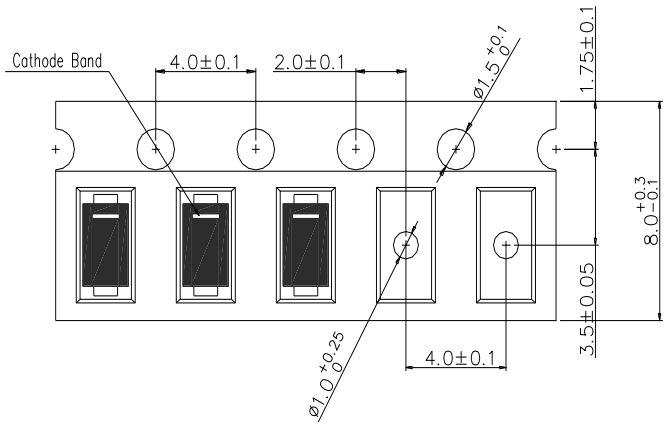


Packing Information

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification



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