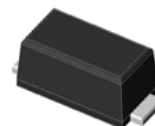


Features

- 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
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



eSGA
(SOD-123FL)

Typical Applications

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

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

Parameter	Symbol	FS12NS	FS13NS	FS14NS	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	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	25			A
Operating junction temperature range	TJ	-55 to +125			°C
Storage temperature range	TSTG	- 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	0.43	-	Volts
	1 A ,TA=25℃		-	0.52	
Reverse current at rated DC blocking voltage	TA=25℃	I _R	-	0.50	mA
	TA=100℃		-	30	
Typical junction capacitance	4.0 V, 1 MHz	C _J	46		pF
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	95		℃/W
	junction to case	R _{θJC}	60		
	junction to mount	R _{θJM}	30		

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°C unless otherwise noted)

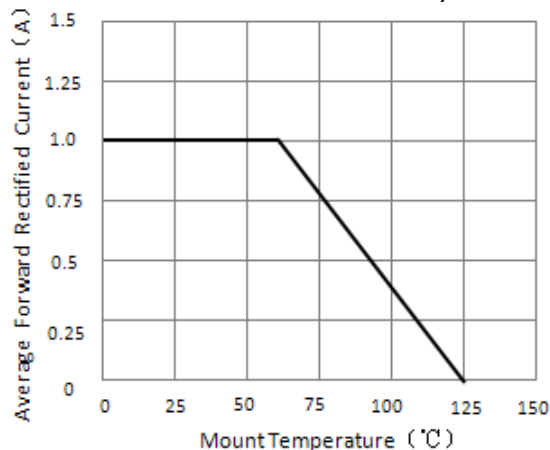


Figure 1. Forward Current Derating Curve

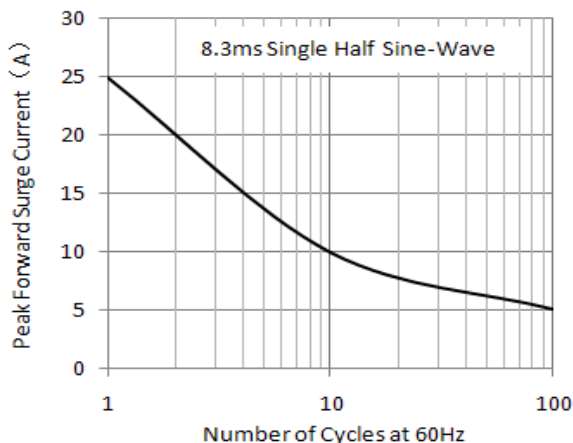


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

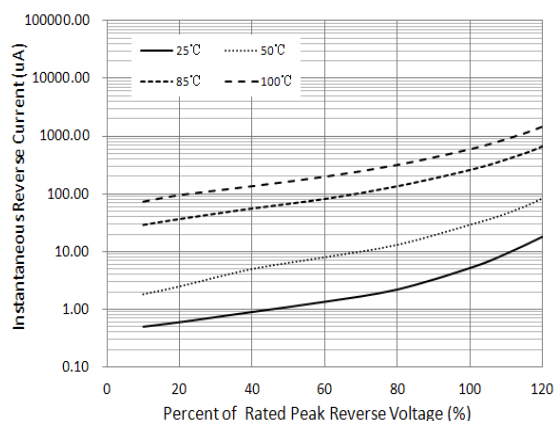


Figure 3. Typical Reverse Characteristics

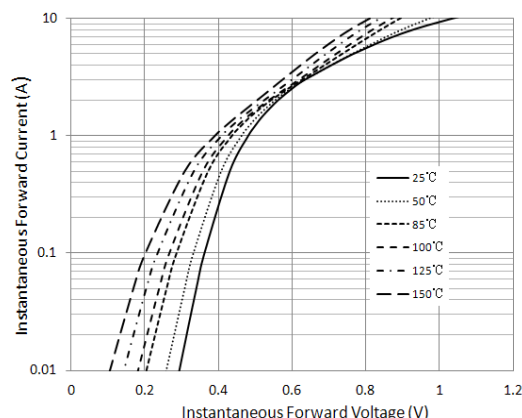


Figure 4. Typical Instantaneous Forward Characteristics

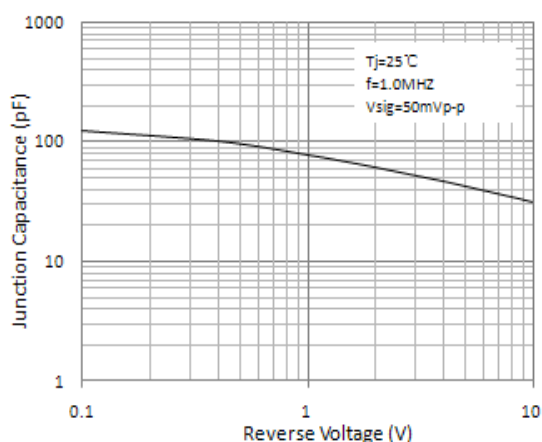
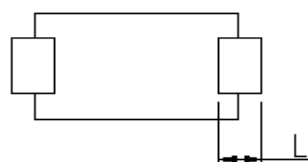
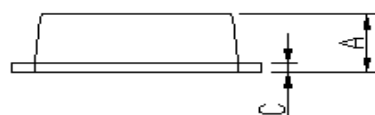
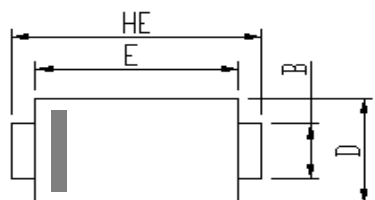


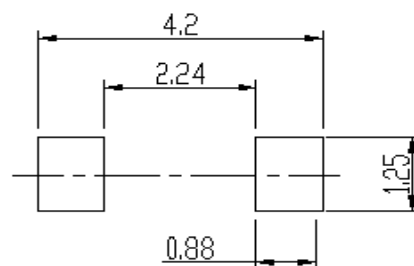
Figure 5. Typical Junction Capacitance

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

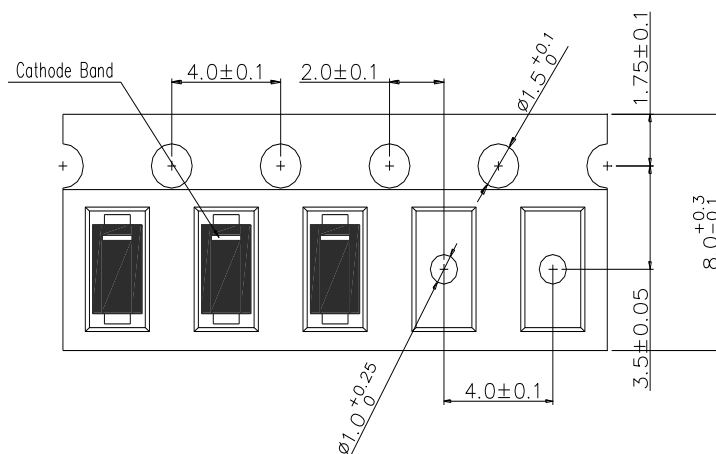


Packing Information

Packing quantities:

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

Tape & Reel Specification





FS12NS thru FS14NS

Surface Mount Schottky Rectifier
Reverse Voltage 20~40V Forward Current 1A

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