FS12 thru FS1CH

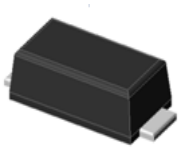
Surface Mount Schottky Rectifier

Reverse Voltage 20~200V Forward Current 1A

Features

- 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	FS12	FS13	FS14	FS16	FS1B	FS1B5H	FS1CH	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	60	100	150	200	V
Maximum RMS voltage	VRMS	14	21	28	42	70	105	140	V
Maximum DC blocking voltage	VDC	20	30	40	60	100	150	200	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	30.0							A
Operating junction temperature range	TJ	- 55 to + 150					- 55 to + 175		°C
Storage temperature range	TSTG	- 55 to + 150							°C

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

Parameter	Test Conditions	Symbol	FS12	FS13	FS14	FS16	FS1B	FS1B5H	FS1CH	Unit
Maximum instantaneous forward voltage	IF=0.5A,TA=25℃	V_F	0.40	0.45		0.55	0.75	0.80		Volts
	IF=1 A,TA=25℃		0.50			0.70	0.81	0.90		
Maximum DC reverse current at rated DC blocking voltage	TA=25℃	I_R	200	200		200	150	200		uA
	TA=125℃		10	30		20				mA
Typical thermal resistance[1)]	juntion to ambient	$R_{\theta JA}$	90							℃/W
	juntion to case	$R_{\theta JC}$	60							
	juntion to mount	$R_{\theta JM}$	20							

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)

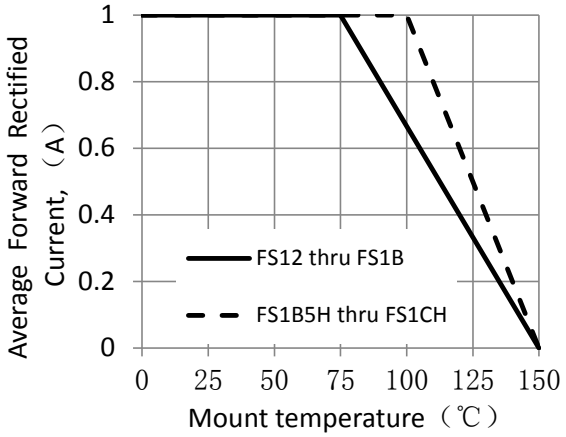


Figure 1.Forward Current Derating Curve

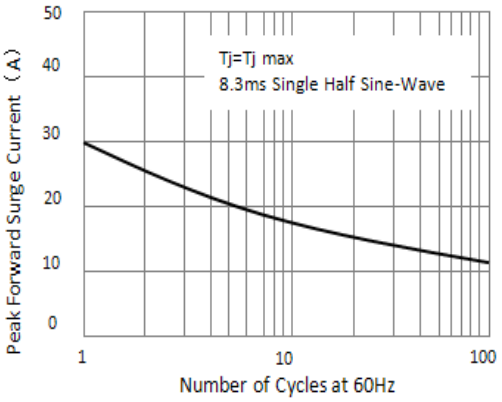


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

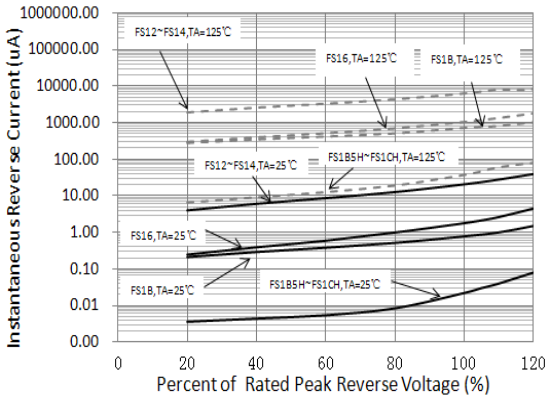


Figure 3. Typical Instantaneous Reverse Characteristics

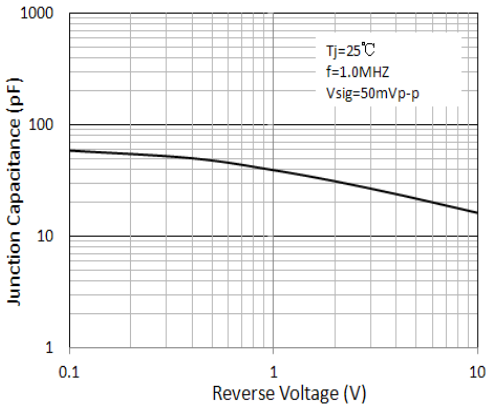


Figure 4. Typical Junction Capacitance

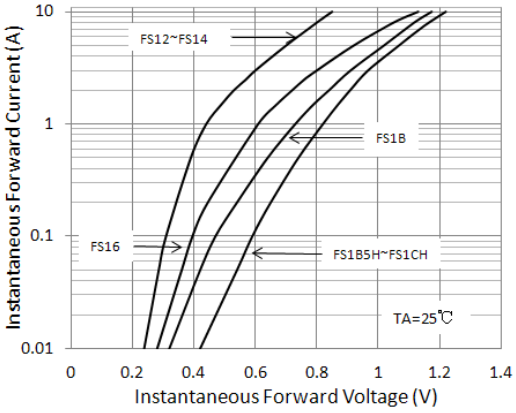
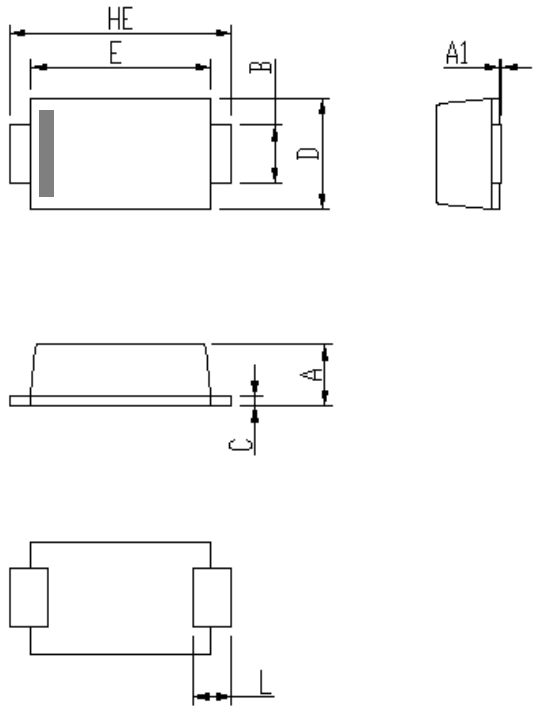


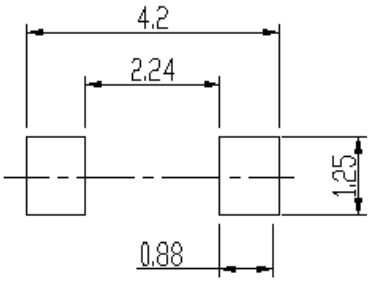
Figure 5. Typical Instantaneous Forward Characteristics

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

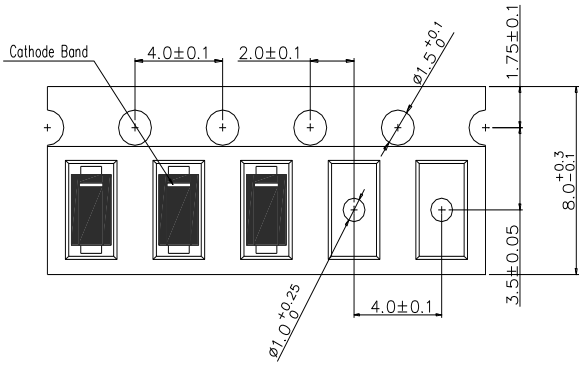


Packing Information

Packing quantities:

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

Tape & Reel Specification



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