

# Surface Mount Schottky Rectifier Reverse Voltage 40V 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 °C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition





eSGA (SOD-123FL)

## **Typical Applications**

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

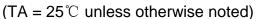
Maximum Ratings (TA = 25 °C unless otherwise noted)							
Parameter	Symbol	FSL14	Unit				
Maximum repetitive peak reverse voltage	VRRM	40	V				
Maximum RMS voltage	VRMS	28	V				
Maximum DC blocking voltage	VDC	40	V				
Maximum average forward rectified current	IF(AV)	1.0	Α				
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	40	А				
Operating junction temperature range	$T_J$	-55 to +125	°C				
Storage temperature range	T <sub>STG</sub>	- 55 to + 150	°C				

Electrical Characteristics (TA = 25 °C unless otherwise noted)								
Parameter	Test Conditions	Symbol	Тур.	Max	Unit			
Instantaneous forward	1 A ,TA=25℃	V <sub>F</sub>	-	0.48	Volts			
voltage	1 A ,TA=100℃		0.38	-	Volts			
Reverse current at rated DC blocking voltage	TA=25°C	I <sub>R</sub>	-	0.50	m ^			
	TA=100°C		-	10	mA mA			
Typical junction capacitance	4.0 V, 1 MHz	CJ	55		pF			
Typical thermal resistance <sup>1)</sup>	juntion to ambient	$R_{\theta JA}$	100					
	juntion to case	$R_{\theta JC}$	55		°C/W			
	juntion to mount	$R_{\theta JM}$	35					

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB



### Ratings and Characteristics Curves



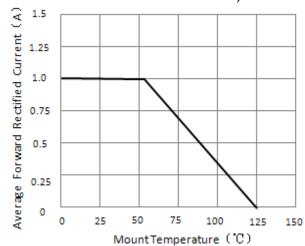


Figure 1. Forward Current Derating Curve

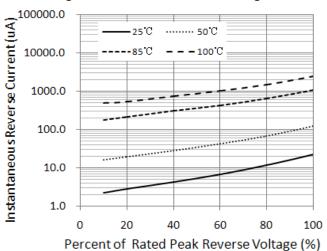


Figure 3. Typical Reverse Characteristics

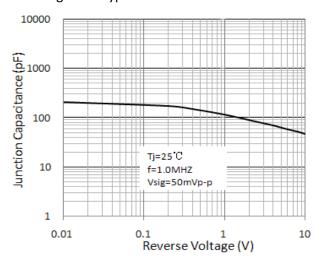


Figure 5. Typical Junction Capacitance

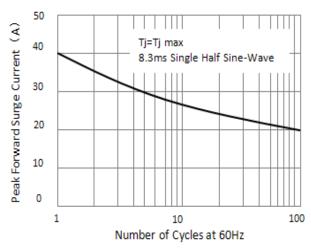


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

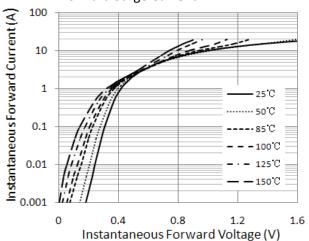
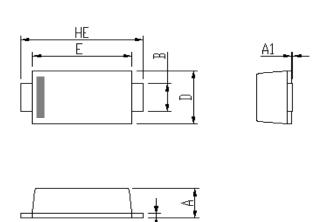


Figure 4. Typical Instantaneous Forward Characteristics

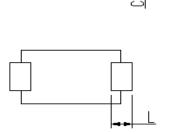


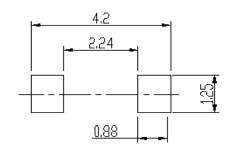
# **Package Outline Dimensions**



DIM	Unit:	mm	Unit: inch		
	MIN	MAX	MIN	MAX	
Α	0.9	1.08	0.035	0.043	
A1	0	0.1	0.000	0.004	
В	0.85	1.05	0.033	0.041	
С	0.1	0.25	0.004	0.010	
D	1.7	2	0.067	0.079	
Е	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



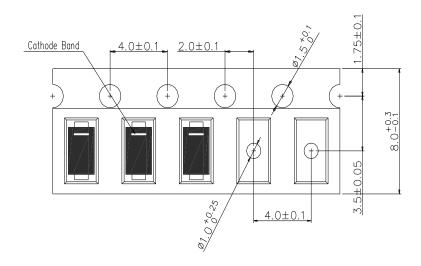


# **Packing Information**

#### Packing quantities:

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

#### **Tape & Reel Specification**



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