

# GSGP0140SD thru GSGP0160SD

Surface Mount Schottky Rectifier Reverse Voltage 40-60V Forward Current 1A

#### **Features**

- · Low forward voltage drop
- · Low leakage current
- · Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- · Low profile, typical thickness 1.0mm
- Halogen-free according to IEC 61249-2-21 definition

Package: eSGP (SOD-323F)



## **Applications**

For use in fast swiching in RF module, lighting, cell phone, portable devices, power supplie and other consumer applications.

### **Maximum Ratings** (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	GSGP0140SD	GSGP0160SD	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	V
Maximum RMS Voltage	$V_{RMS}$	28	42	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1.0		Α
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	25		Α
Operating Junction Temperature Range	$T_J$	- 55 to + 150		$\mathcal{L}$
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150		C

#### **Electrical Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	GSGP0140SD	GSGP0160SD	Unit
Instantaneous Forward Voltage	I <sub>F</sub> =1A	$V_{F}$	0.55	0.70	٧
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	0	.1	mA
Typical Junction Capacitance	4.0 V, 1 MHz	$C_J$	6	0	pF
Typical Thermal Resistance	Juntion to Mount	$R_{\theta JM}^{1)}$	4	.0	°C/W

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



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## Ratings and Characteristics Curves (T<sub>A</sub> = 25°C unlessotherwise noted)

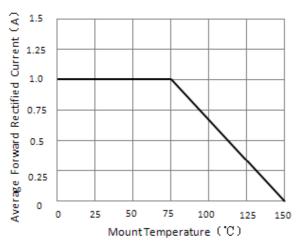


Figure 1. Forward Current Derating Curve

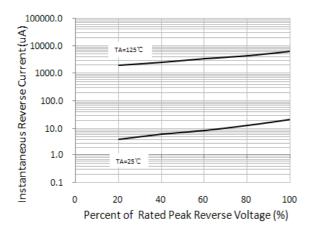


Figure 3. Typical Reverse Characteristics

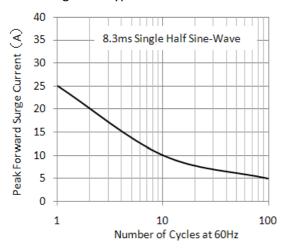


Figure 5.Maximum Non-Repetitive Peak Forward Surge Current

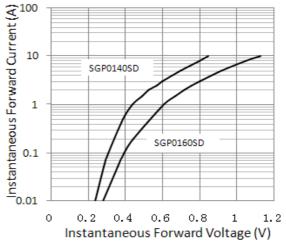


Figure 2. Typical Instantaneous Forward Characteristics

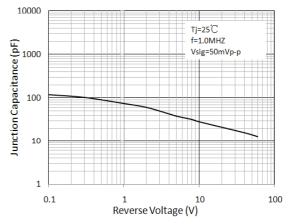


Figure 4. Typical Junction Capacitance

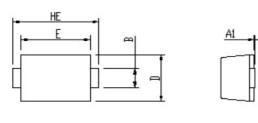


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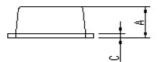
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## **Package Outline Dimensions**

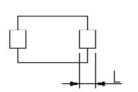
#### eSGP (SOD-323F)

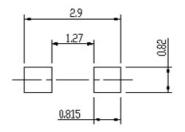


DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
Α	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
В	0.5	0.7	0.020	0.028
С	0.1	0.25	0.004	0.010
D	1.4	1.6	0.055	0.063
E	2	2.2	0.079	0.087
L	0.35	0.65	0.014	0.026
HE	2.4	2.8	0.094	0.110









## **Packing Information**

#### **Packing quantities**

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

