

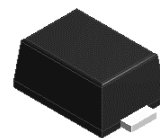
0.2A,20-100V Schottky Barrier Rectifiers

Features

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds



RoHS
COMPLIANT



eSGP(SOD-323F)

Applications

For use in low voltage, high frequency inverters, free-wheeling and polarity protection application.

Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)						
Parameter	Symbol	SGPD220S	SGPD240S	SGPD260S	SGPD2BS	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	100	V
Maximum RMS voltage	V _{RMS}	14	28	42	70	V
Maximum DC blocking voltage	V _{DC}	20	40	60	100	V
Maximum average forward rectified current	I _{F(AV)}	0.2				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	10				A
Operating junction temperature range	T _J	-55 to +150				°C
Storage temperature range	T _{STG}	-55 to +150				°C

Thermal-Mechanical Specifications (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R _{thJA}	120	°C /W
Thermal Resistance, Junction to Case	R _{thJC}	40	°C /W
Thermal Resistance, Junction to Lead	R _{thJL}	40	°C /W

Electrical Specifications(T _A =25°C unless otherwise noted)							
Parameter	Symbol	Test Conditions	SGPD220S	SGPD240S	SGPD260S	SGPD2BS	Unit
Maximum forward drop voltage	V _F	I _F =0.2A	0.45	0.50	0.60	0.80	V
Maximum reverse leakage current @V _R	I _R	T _J =25°C	80		50		uA
		T _J =125°C	30				mA
Typical junction capacitance	C _J	V _R =4.0V, f=1MHZ	18	13	12	9	pF

Note:

1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

Ratings and Characteristics Curves (T_A=25°C unless otherwise noted)

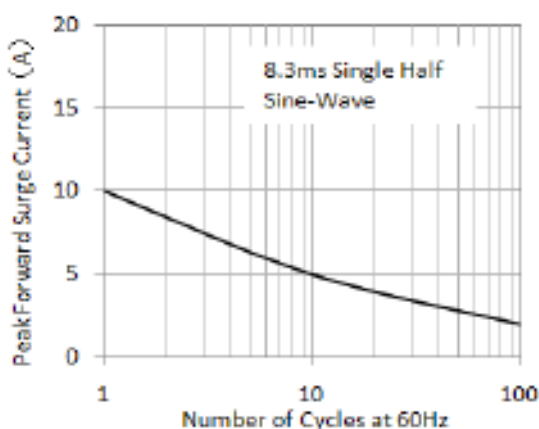


Figure 1. Maximum Non-Repetitive Peak Forward Surge Current

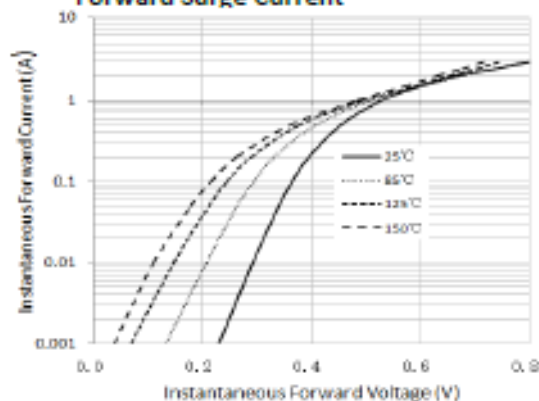


Figure 3. Typical Instantaneous Forward Characteristics (SGPD220S)

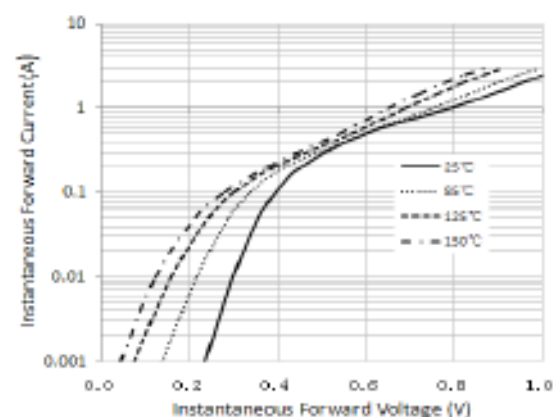


Figure 5. Typical Instantaneous Forward Characteristics (SGPD240S)

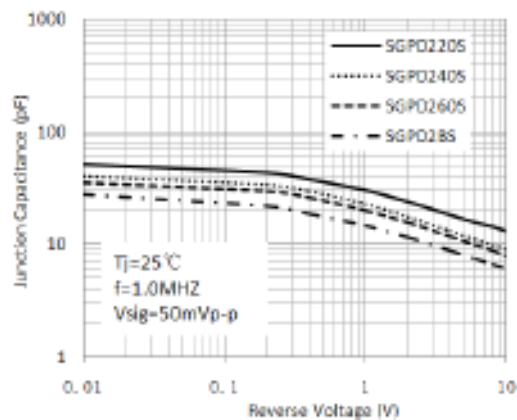


Figure 2. Typical Junction Capacitance

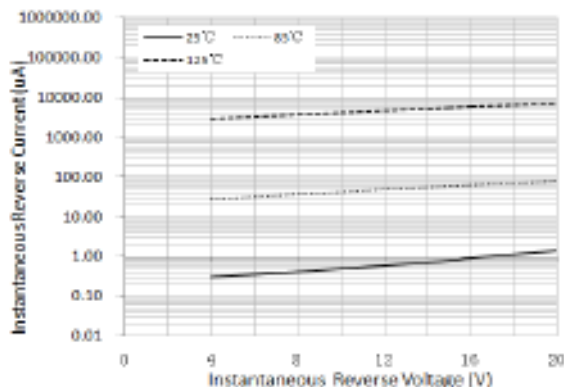


Figure 4. Typical Reverse Characteristics (SGPD220S)

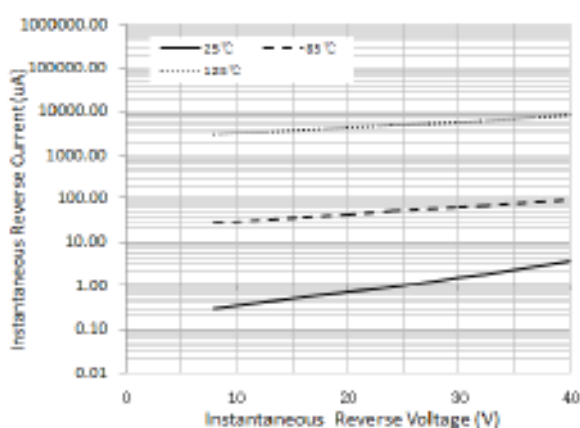


Figure 6. Typical Reverse Characteristics (SGPD240S)

Ratings and Characteristics Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

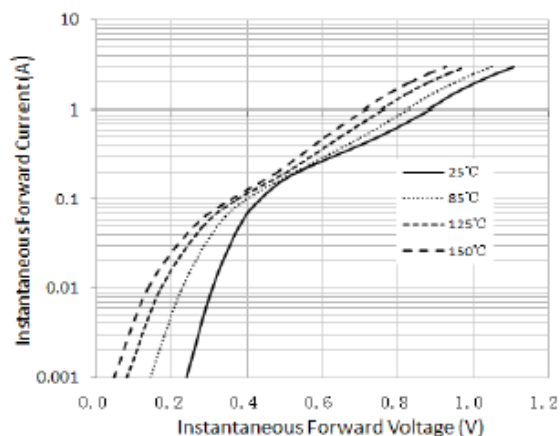


Figure 7. Typical Instantaneous Forward Characteristics (SGPD260S)

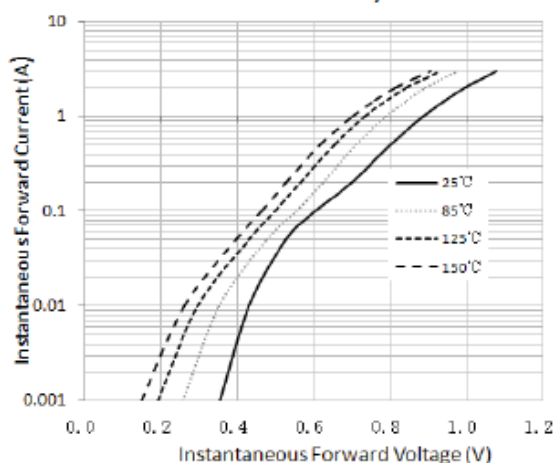


Figure 9. Typical Instantaneous Forward Characteristics (SGPD2BS)

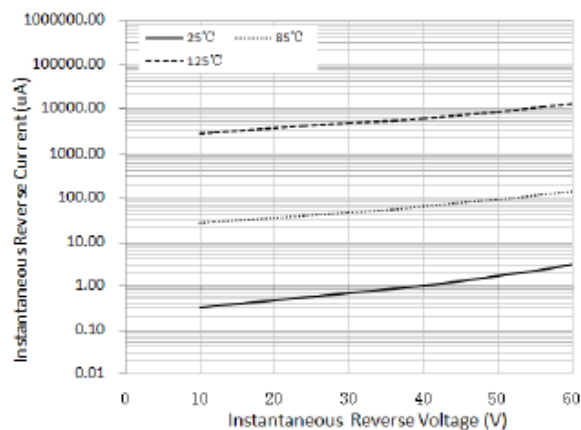


Figure 8. Typical Reverse Characteristics (SGPD260S)

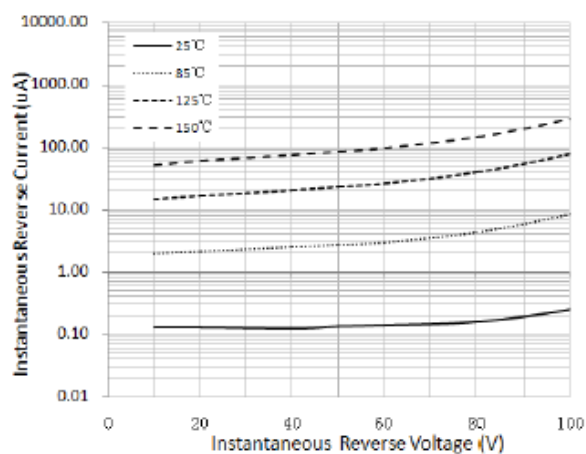
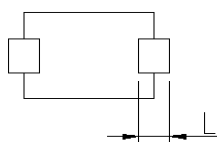
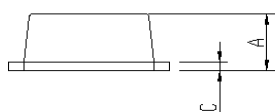
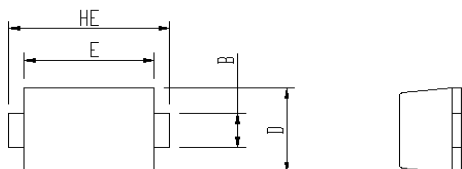


Figure 10. Typical Reverse Characteristics (SGPD2BS)

Package Outline Dimensions

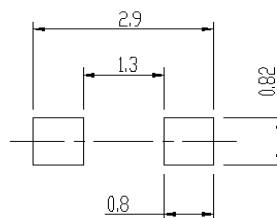
in inches (millimeters)

eSGP (SOD-323F)



Package	Unit:mm		Unit:inch	
	M N	MAX	M N	MAX
eSGP				
A	0.9	1.08	0.035	0.043
B	0.5	0.7	0.020	0.028
C	0.1	0.25	0.004	0.010
D	1.4	1.6	0.055	0.063
E	2.0	2.2	0.079	0.087
L	0.35	0.65	0.014	0.026
HE	2.4	2.8	0.094	0.110

Soldering footprint



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