

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- 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



eSGB (SMAF)

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	GSL2U1	GSL2U2	GSL2U3	GSL2U4	GSL2U5	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current	I _{F(AV)}	2					A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load per diode	I _{FSM}	50					A
Typical Thermal Resistance, Junction to Ambient ¹	R _{θJA}	85					°C/W
Typical Thermal Resistance, Junction to Case ¹	R _{θJC}	15					°C/W
Typical Thermal Resistance, Junction to Lead ¹	R _{θJL}	18					°C/W
Operating Junction Temperature Range	T _J	-55 to +150					°C
Storage Temperature Range	T _{STG}	-55 to +150					°C

Note:

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

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

Parameter	Symbol	Test Conditions	GSL2U1	GSL2U2	GSL2U3	GSL2U4	GSL2U5	Unit
Forward Drop Voltage	V _F	I _F =2A	1.0			1.3	1.7	V
Reverse Leakage Current @ V _R	I _R	T _J =25°C	5					uA
		T _J =125°C	50					
Typical Junction Capacitance	C _J	4.0V, 1 MHz	15					pF
Maximum Reverse Recovery Time	t _{rr}	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	35					nS

Typical Characteristics Curves

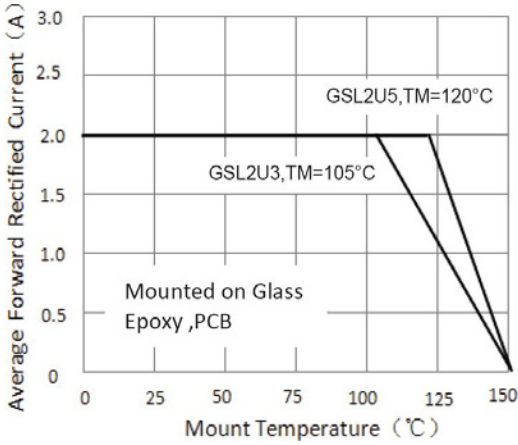


Figure 1. Forward Current Derating Curve

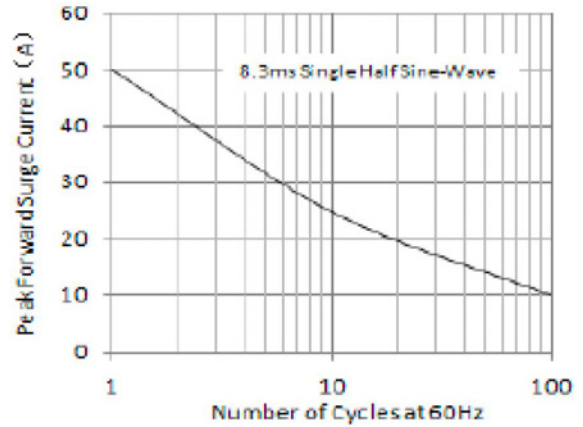


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

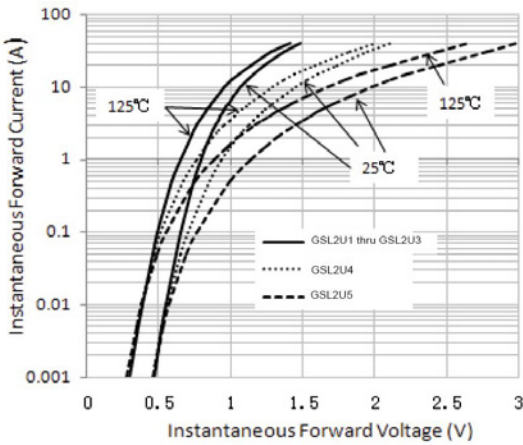


Figure 3. Typical Instantaneous Forward Characteristics

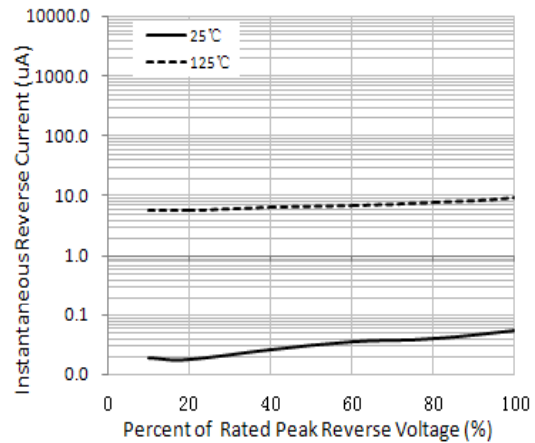


Figure 4. Typical Reverse Characteristics

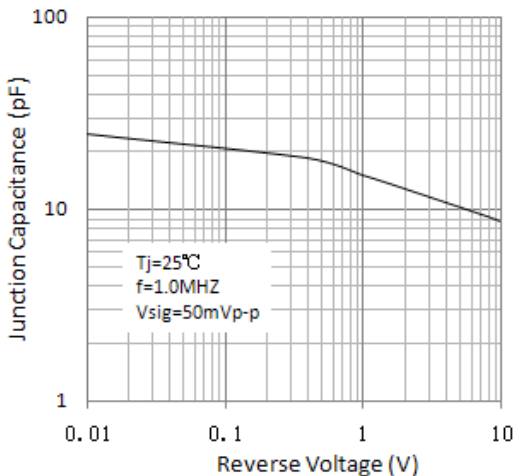
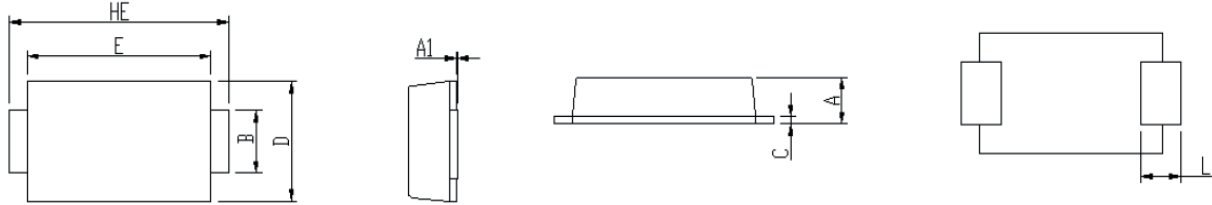


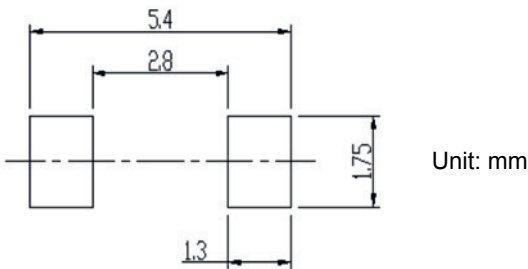
Figure 5. Typical Junction Capacitance

Package Outline Dimensions eSGB (SMAF)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.92	1.08	0.036	0.043
A1	0.00	0.10	0.000	0.004
B	1.25	1.45	0.049	0.057
C	0.10	0.25	0.004	0.010
D	2.60	2.80	0.102	0.110
E	4.10	4.30	0.161	0.169
L	0.70	1.10	0.028	0.043
HE	4.80	5.20	0.189	0.205

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSL2U1	eSGB (SMAF)	L2U1	Tape & Reel	10,000pcs / Reel
GSL2U2	eSGB (SMAF)	L2U2	Tape & Reel	10,000pcs / Reel
GSL2U3	eSGB (SMAF)	L2U3	Tape & Reel	10,000pcs / Reel
GSL2U4	eSGB (SMAF)	L2U4	Tape & Reel	10,000pcs / Reel
GSL2U5	eSGB (SMAF)	L2U5	Tape & Reel	10,000pcs / Reel