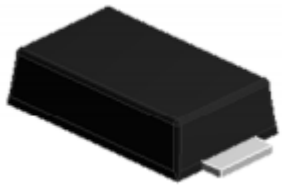
L21A thru L27A.

Surface Mount Glass Passivated Standard Rectifier

SMAF(eSGB)



Features

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020 LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874

Primary characteristics

$I_{F(AV)}$	2A
V_{RRM}	50V to 1000V
I_{FSM}	55A
I_{RM}	5uA
V_{FM} at I_F=2A	1.1V
T_J max.	150 °C

Applications

Ideal for ac-to-dc bridge full wave rectification suck as SMPS, home applianes, office equipment, indusrial automation applicatios

Mechanical data

- SMAF(eSGB)
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque:10cm-kg(8.8 inches-lbs)max.
- Recommended Torque:5.7 cm-kg(5 inches-lbs)

Maximum rating (Ta=25°C unless otherwise noted)

Parameter		Sym	SMAF(eSGB)							Unit
			L21A	L22A	L23A	L24A	L25A	L26A	L27A	
Max. repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Max. RMS reverse voltage		V_{RMS}	35	70	140	280	420	560	700	V
Max. DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	V
Max. average forward current		$I_{F(AV)}$	2							A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave		I_{FSM}	55							A
Max. instantaneous forward voltage drop per diode		V_{FM}	1.1 (2 A)							V
Max. instantaneous reverse current at rated DC blocking voltage	Ta=25 °C	I_{RM}	5							μA
	Ta=125 °C		50							μA
Operating junction temperature		T_J	-55 ~ +150							°C
Storage temperature		T_{STG}	-55 ~ +150							°C
Typical thermal resistance (Note 1)		$R_{\Theta J-M}$	20							°C/W
Typical junction capacitance (Note 2)		C_J	6							pF
Typical reverse recovery time (Note 3)		t_{rr}	2.3							us

Notes:

1The thermal resistance from junction to mount,mounted on P.C.B with 8×8mm copper pads,2 OZ,FR4 PCB

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C

3. Reverse recovery test conditions: IF=0.5A, IR=1.0A, Irr=0.25A

Ordering information (Example)

PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
L27A				

Typical characteristics

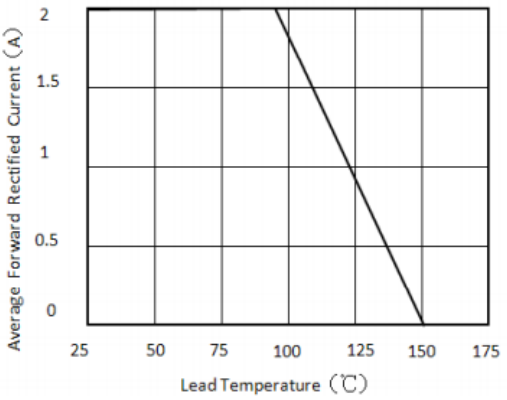


Figure 1.Forward Current Derating Curve

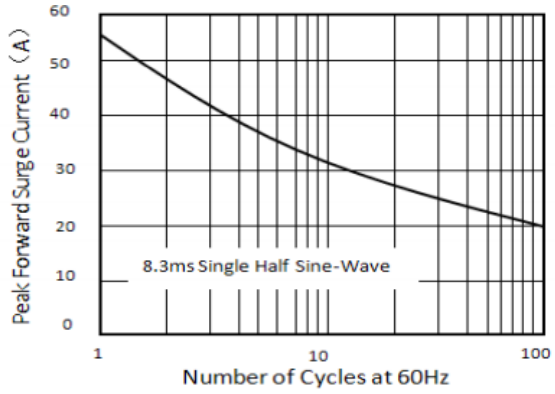


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

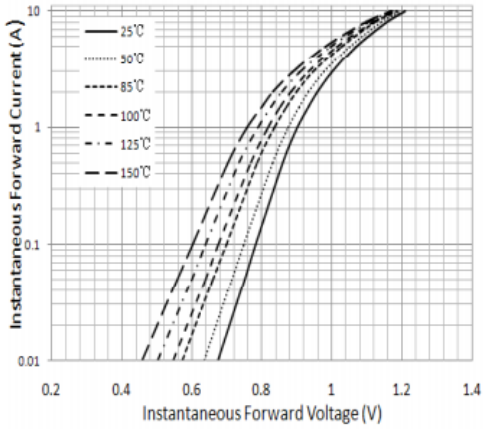


Figure 3. Typical Instantaneous Forward Characteristics

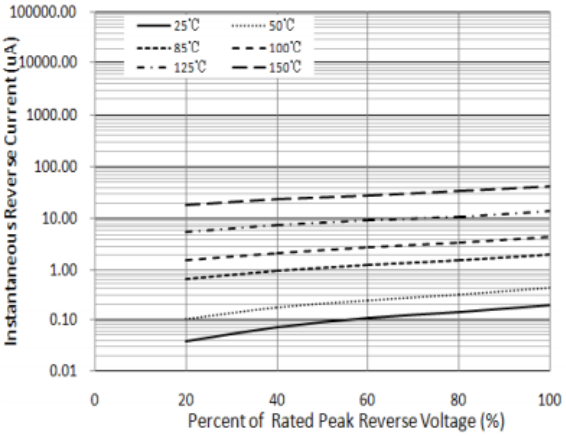
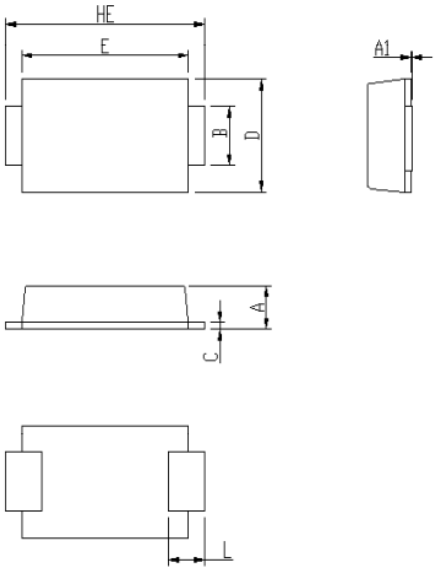


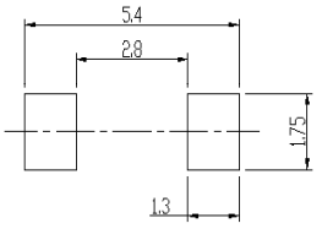
Figure 4. Typical Reverse Characteristics

Package outline dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.92	1.08	0.036	0.043
A1	0	0.1	0.000	0.004
B	1.25	1.45	0.049	0.057
C	0.1	0.25	0.004	0.010
D	2.6	2.8	0.102	0.110
E	4.1	4.3	0.161	0.169
L	0.7	1.1	0.028	0.043
HE	4.8	5.2	0.189	0.205

Soldering footprint



Golden SEMI Inc. - Legal Notice

Disclaimer – All data and specifications are subject to changes without notice

GOLDEN SEMI Inc, it's affiliates, agents, distributors and employees neither accept nor assume any responsibility for errors or inaccuracies. All data and specifications are intended for information and provide a product description only. Electrical and mechanical parameters listed in GOLDEN SEMI data sheets and specifications will vary dependent upon application and environmental conditions . GOLDEN SEMI is not liable for any damages occurred or resulting from any circuit, product or end-use application for which it's products are used. GOLDEN SEMI products are not intended or designed for use in life saving or sustaining apparatus and purchase of any GOLDEN SEMI products automatically indemnifies GOLDEN SEMI against any claims or damages resulting from application malfunction