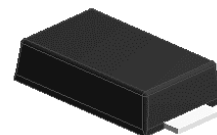


5A,100V Schottky Barrier Rectifier

Features

- Low leakage current
- Schottky barrier diode
- 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



eSGB (DO-221AC)

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	LSL5B	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	100	V
Maximum RMS voltage	V _{RMS}	70	V
Maximum DC blocking voltage	V _{DC}	100	V
Maximum average forward rectified current	I _{F(AV)}	5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	80	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}	85	°C /W
Thermal Resistance, Junction to Case	R _{thJC}	15	°C /W
Thermal Resistance, Junction to Lead	R _{thJL}	18	°C /W

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

Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage	V _F	I _F =3A T _A =25°C	0.48	0.54	V
		I _F =5A T _A =25°C	0.54	0.58	
		I _F =5A T _A =125°C	0.50	0.54	
Reverse leakage current @V _R	I _R	T _J =25°C	10.99	50	uA
		T _J =100°C	1.80	10	mA
Junction capacitance	C _J	V _R =4.0V, f=1MHZ	673	--	pF

Note:

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

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

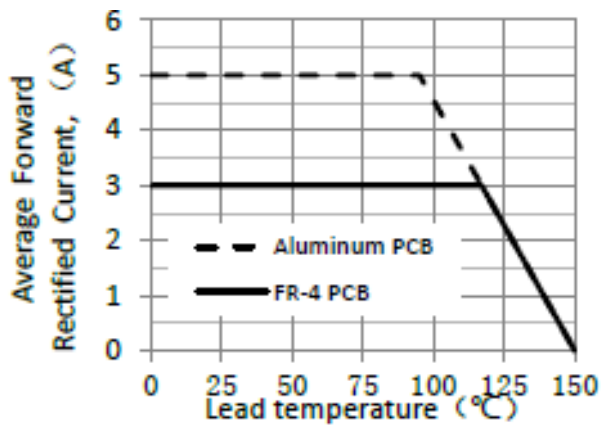


Figure 1. Forward Current Derating Curve

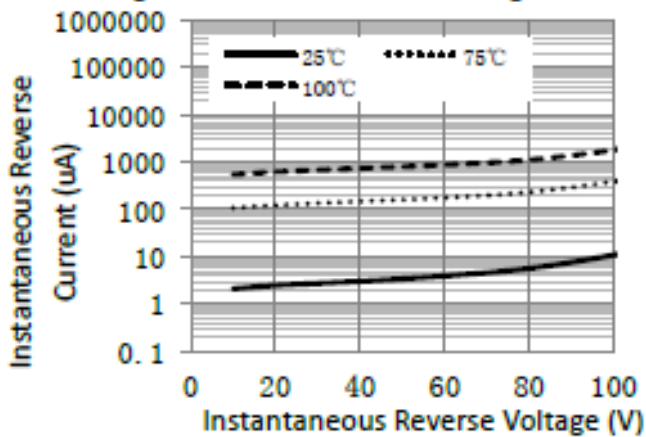


Figure 3. Typical Reverse Characteristics

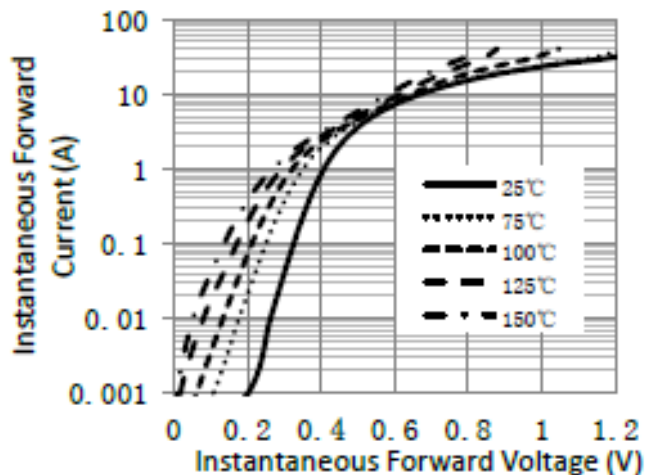


Figure 5. Typical Instantaneous Forward Characteristics

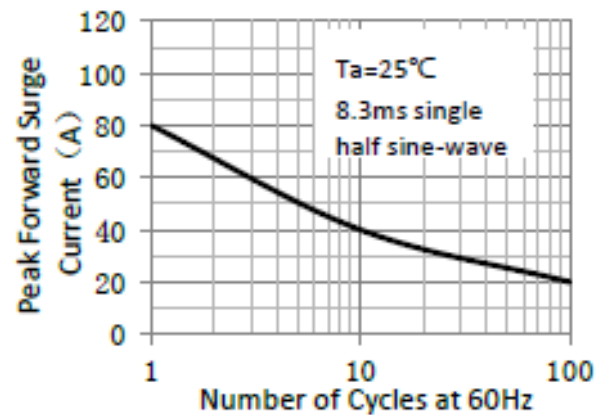


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

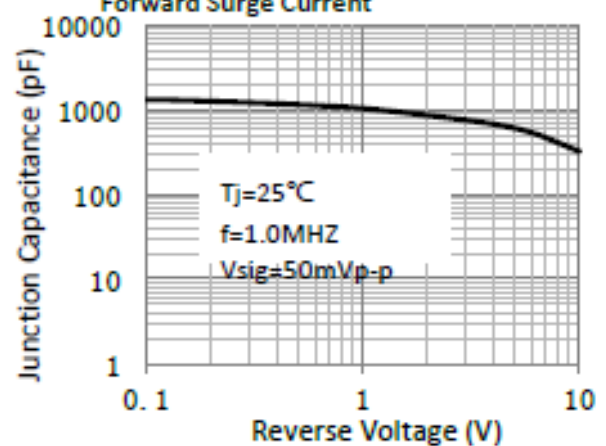
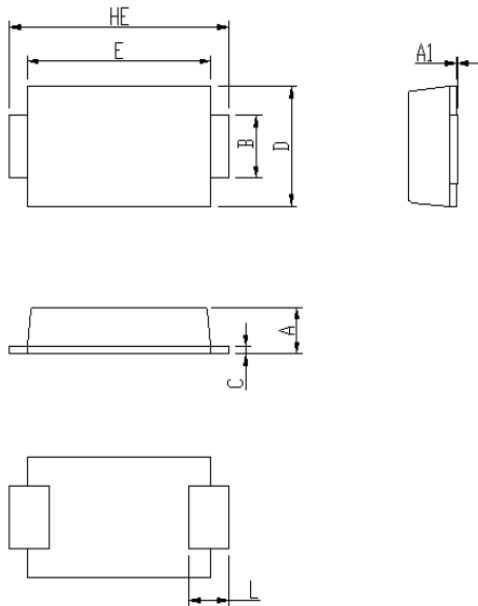


Figure 4. Typical Junction Capacitance

Package Outline Dimensions

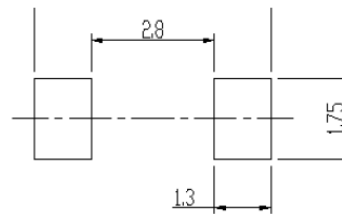
in inches (millimeters)

eSGB (DO-221AC)



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



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