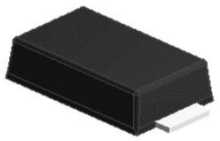
3A,60-100V Schottky Barrier Rectifiers

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℃/10 seconds

Pb
RoHS
COMPLIANT



eSGB (DO-221AC)

Applications

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

Maximum Ratings & Electrical Characteristics (TA=25℃ unless otherwise noted)

Parameter	Symbol	LS36	LS3B	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	60	100	V
Maximum RMS voltage	V_{RMS}	42	70	V
Maximum DC blocking voltage	V_{DC}	60	100	V
Maximum average forward rectified current	$I_{F(AV)}$	3		A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	100		A
Operating junction temperature range	T_J	-55 to +150		℃
Storage temperature range	T_{STG}	-55 to +150		℃

Thermal-Mechanical Specifications (TA=25℃ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	85	°C /W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15	°C /W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	18	°C /W

Electrical Specifications(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions		Typ	Max	Unit
Forward Drop Voltage	V_F	LS36	I_F=3A T_A=25℃	-	0.70	V
			I_F=3A T_A=125℃	0.55	-	
		LS3B	I_F=3A T_A=25℃	-	0.80	
			I_F=3A T_A=125℃	0.60	-	
Maximum reverse leakage current @V_R	I_R	T_J =25℃		0.5		mA
		T_J =125℃		100		
Typical junction capacitance	C_J	4.0 V 1 MHZ		234		pF

Note:

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

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

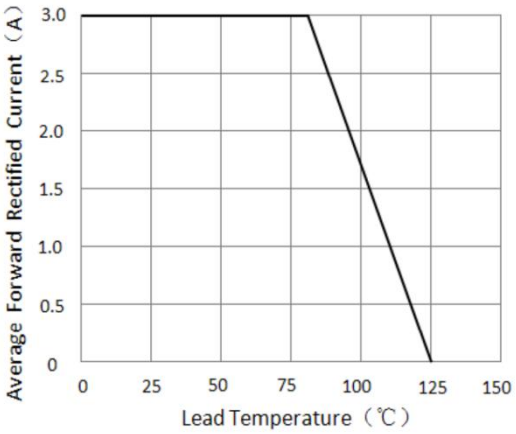


Figure 1.Forward Current Derating Curve

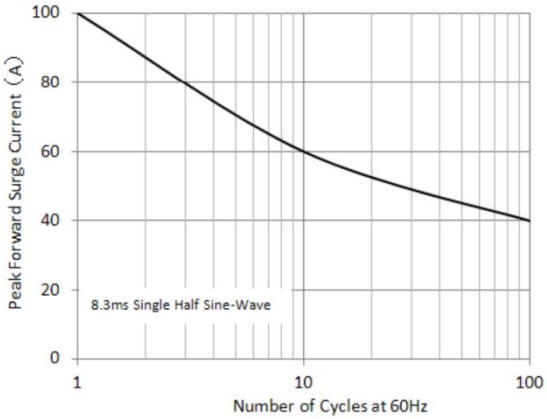


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

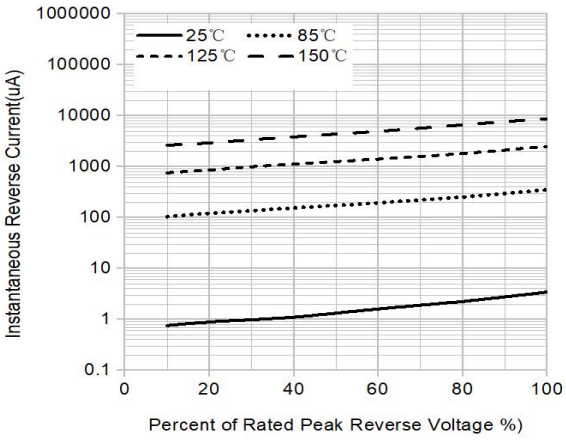


Figure 3. Typical Reverse Characteristics

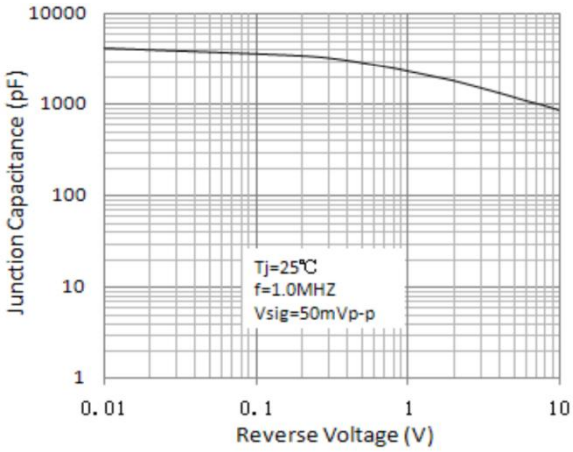


Figure 4. Typical Junction Capacitance

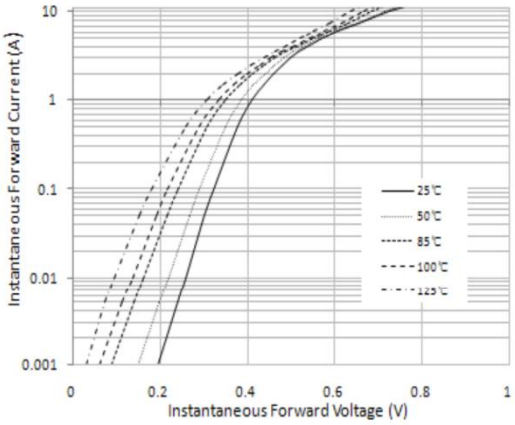
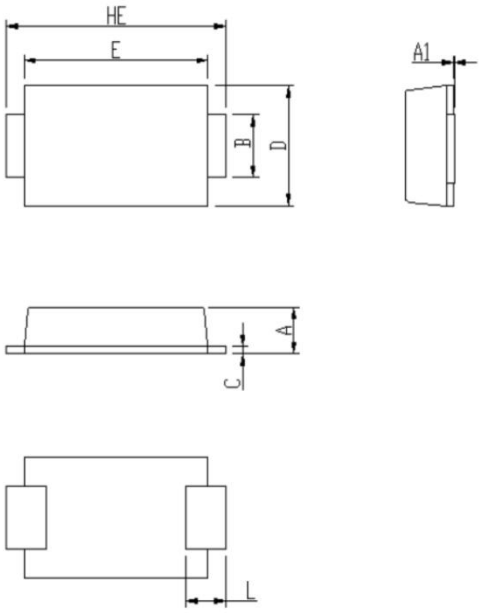


Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions

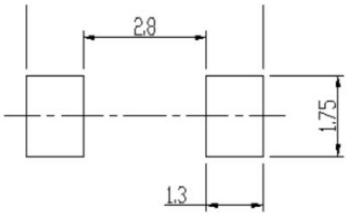
in inches (millimeters)

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



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.10.12	Modify document format
Rev.C	2023.12.29	Modify package name
Rev.D	2025.10.9	Modify ratings and characteristics curves

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