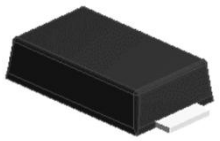
3A,60-100V Schottky Barrier Rectifiers

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
- AEC-Q101 qualified

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	ALS36	ALS3B	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	ALS36	I_F=3A T_A=25℃	-	0.70	V
			I_F=3A T_A=125℃	0.55	-	
		ALS3B	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)

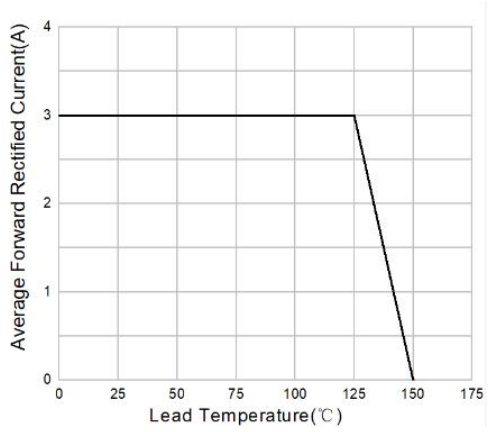


Figure 1.Forward Current Derating Curve

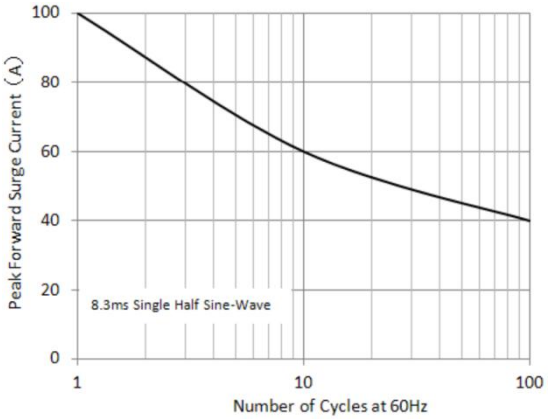


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

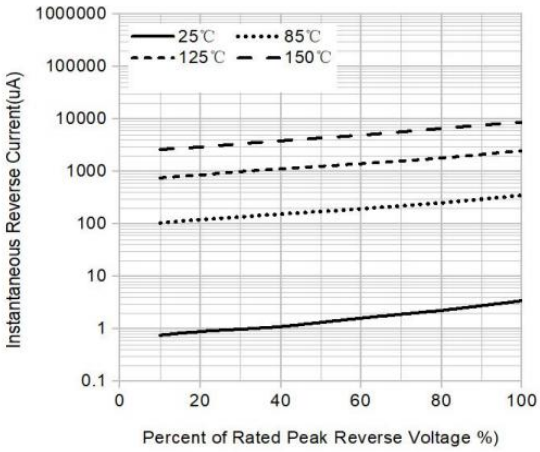


Figure 3. Typical Reverse Characteristics

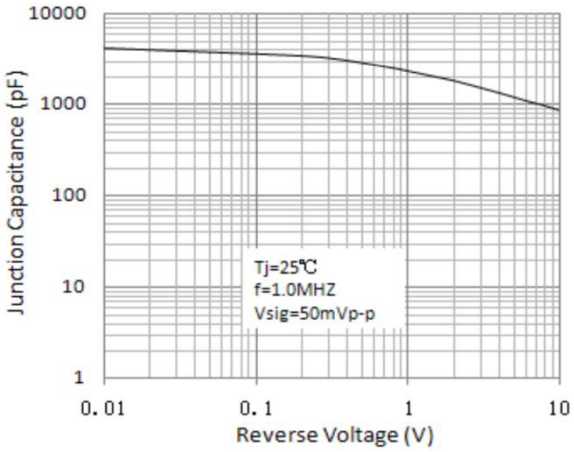


Figure 4. Typical Junction Capacitance

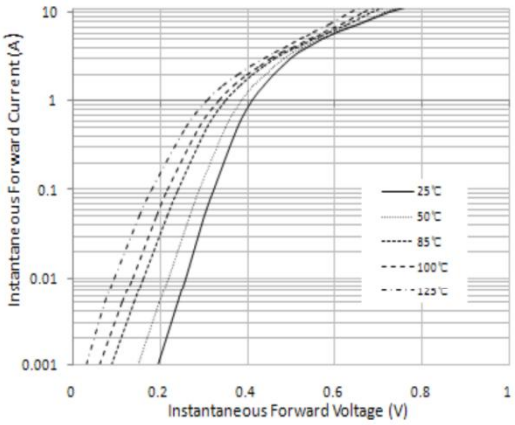
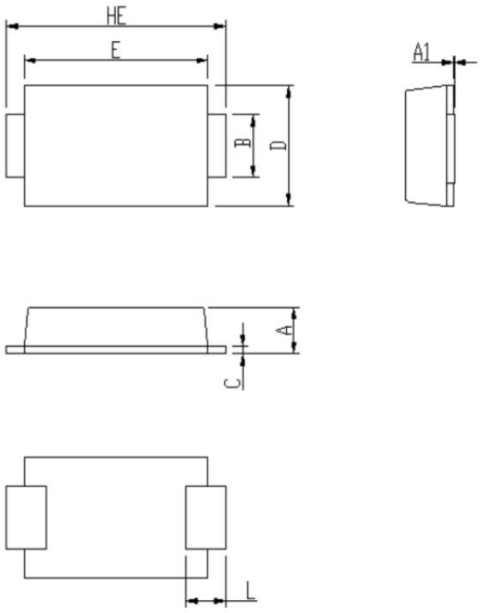


Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions

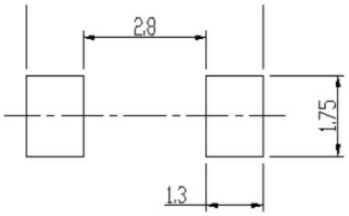
in inches (millimeters)

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	2025.10.27	Released Datasheet

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