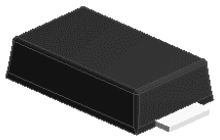
# 2A,100-200V Schottky Barrier Rectifiers

## 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 | LS2BH | LS2B5H | LS2CH | Unit |
|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 100 | 150 | 200 | V |
| Maximum RMS voltage | $V_{RMS}$ | 70 | 105 | 140 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 100 | 150 | 200 | 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 |
| Operating junction temperature range | $T_J$ | -55 to +150 | | | °C |
| Storage temperature range | $T_{STG}$ | -55 to +150 | | | °C |

## 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** | **LS2BH** | **LS2B5H** | **LS2CH** | **Unit** |
| Forward Drop Voltage | $V_F$ | $I_F$=2A | 85 | | | V |
| Reverse leakage current @$V_R$ | $I_R$ | $T_J$ =25℃ | 0.2 | | | mA |
| | | $T_J$ =100℃ | 30 | | | |
| Typical junction capacitance | $C_J$ | 4.0 V<br>1 MHZ | 400 | | | 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)

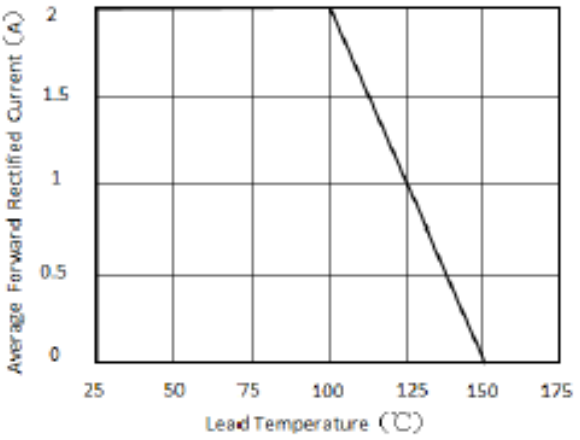



Figure 1.Forward Current Derating Curve

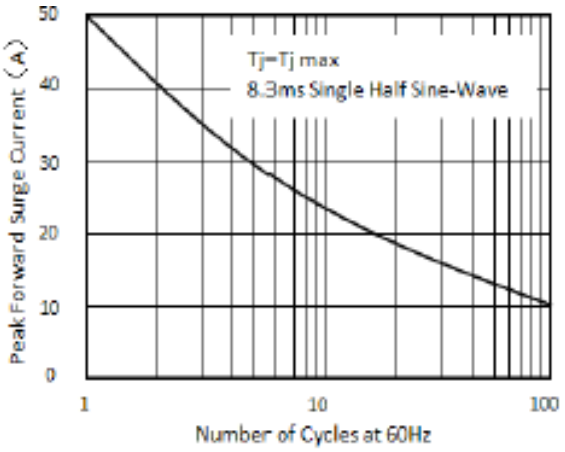



Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

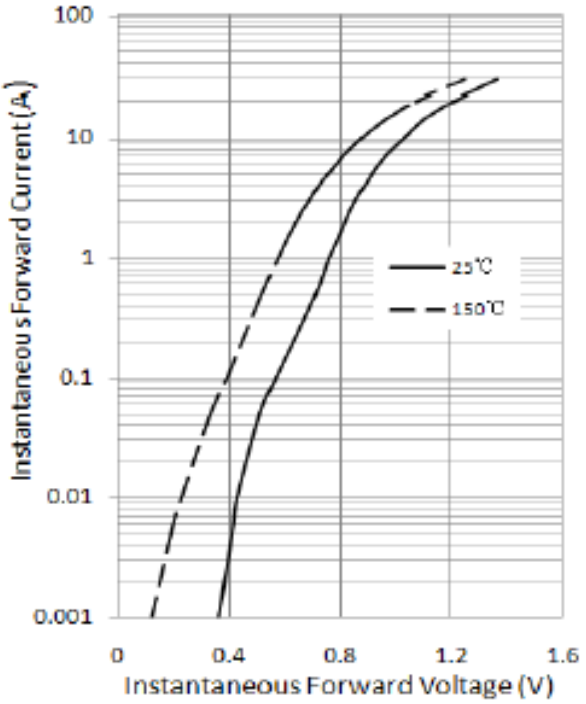



Figure 3. Typical Instantaneous Forward Characteristics

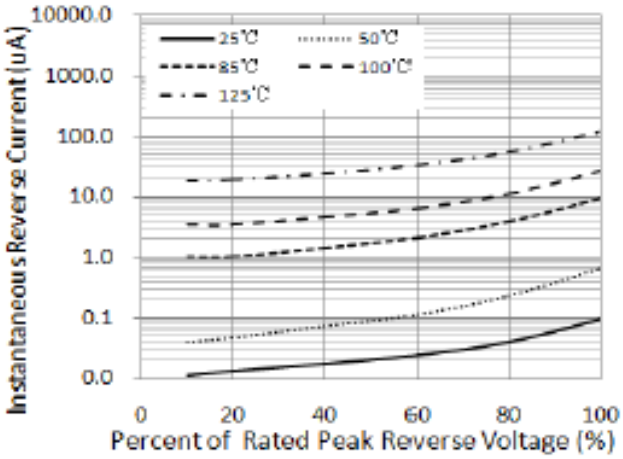
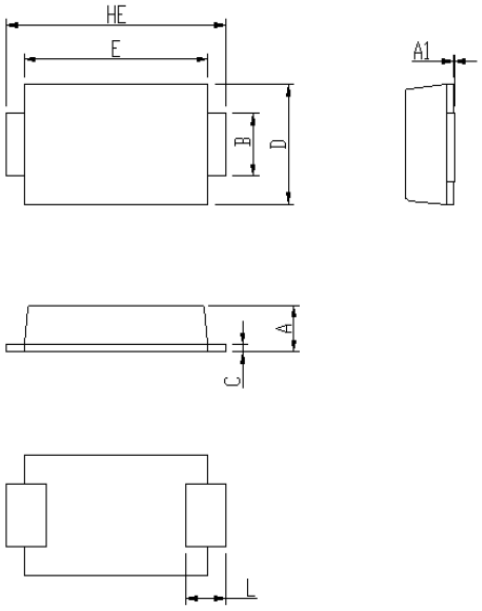



Figure 4. Typical Reverse Characteristics

## Package Outline Dimensions

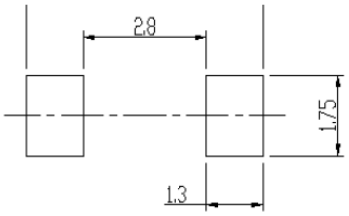
in inches (millimeters)

### 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 |

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