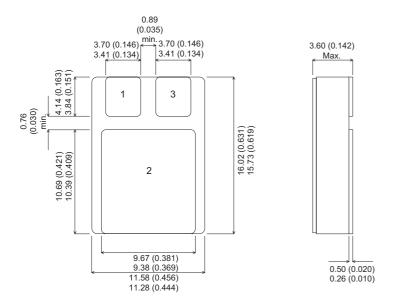


SB30-45MSMD SB30-45ASMD SB30-45RSMD

#### MECHANICAL DATA

Dimensions in mm

 $3 = A_2$  Anode 2



## SMD1 (TO-276AB) CERAMIC PACKAGE

### **Common Cathode Common Anode Series Connection** SB30-45M **SB30-45A SB30-45R** $1 = A_1$ Anode 1 1 = K<sub>1</sub> Cathode 1 1 = K<sub>1</sub> Cathode 1 2 = K Cathode 2 = A Anode 2 = Centre Tap

 $3 = K_2$  Cathode 2

# DUAL SCHOTTKY **BARRIER DIODE** IN CERAMIC SURFACE MOUNT PACKAGE FOR **HI-REL APPLICATIONS**

### **FEATURES**

- HERMETIC CERAMIC PACKAGE
- AVAILABLE IN COMMON CATHODE, **COMMON ANODE AND SERIES** VERSIONS
- **SCREENING OPTIONS AVAILABLE**
- **OUTPUT CURRENT 30A**
- LOW V<sub>F</sub>
- LOW LEAKAGE

### ABSOLUTE MAXIMUM RATINGS (T<sub>case</sub> = 25°C unless otherwise stated)

| $\overline{V_{RRM}}$ | Peak Repetitive Reverse Voltage                     | 45V            |
|----------------------|---|----------------|
| $V_{RSM}$            | Peak Non-Repetitive Reverse Voltage                 | 45V            |
| $V_{R}$              | Continuous Reverse Voltage                          | 45V            |
| $I_{F(AV)}$          | Maximum Average Forward Current                     | 30A            |
| I <sub>FSM</sub>     | Peak Non-Repetitive Surge Current at 50Hz (per leg) | 245A           |
| $T_{STG}$            | Storage Temperature Range                           | -55°C to 150°C |
| $T_J$                | Maximum Operating Junction Temperature              | 150°C          |

 $3 = A_2$  Anode

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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SB30-45MSMD SB30-45ASMD SB30-45RSMD

## **ELECTRICAL CHARACTERISTICS** (T<sub>CASF</sub> = 25°C unless otherwise stated

|                | Parameter                                 | Tes                  | t Conditions           | Min. | Тур. | Max. | Unit |
|----------------|---|----------------------|------------------------|------|------|------|------|
|                |   | I <sub>F</sub> = 15A | $T_J = 25^{\circ}C$    |      |      | 0.6  |      |
| V <sub>F</sub> | Maximum Forward Voltage Drop (per diode)* | I <sub>F</sub> = 30A | T <sub>J</sub> = 25°C  |      |      | 0.75 | - V  |
|                |   | I <sub>F</sub> = 15A | T <sub>J</sub> = 125°C |      |      | 0.55 |      |
|                |   | I <sub>F</sub> = 30A | T <sub>J</sub> = 125°C |      |      | 0.7  |      |
| I <sub>R</sub> | Reverse Maximum                           | V <sub>R</sub> = 45V | $T_J = 25^{\circ}C$    |      |      | 2    | mA   |
|                | Leakage Current (per diode)*              | V <sub>R</sub> = 45V | T <sub>J</sub> = 125°C |      |      | 75   |      |
| C <sub>d</sub> | Junction Capacitance                      | V <sub>R</sub> = 5 V | f = 1 MHz              |      | 900  |      | pF   |

<sup>\*</sup>Pulse test tp=300μs δ≤2%

|                      | Parameter                                   |               |     | Unit |
|----------------------|---|---------------|-----|------|
| R <sub>TH(j-c)</sub> | Maximum Thermal Resistance Junction To Case | (per package) | 1.3 | °C/W |
| R <sub>TH(j-c)</sub> | Maximum Thermal Resistance Junction To Case | (per diode)   | 2.4 | °C/W |

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