

| | | |
|-----------|----|---|
| V_R | 30 | V |
| I_o | 6 | A |
| I_{FSM} | 50 | A |

● Features

- High reliability
- Power mold type
- Cathode common dual type
- Low V_F

● Application

- Switching power supply

● Structure

- Silicon epitaxial planar

● Absolute Maximum Ratings ($T_c=25^\circ\text{C}$ unless otherwise specified)

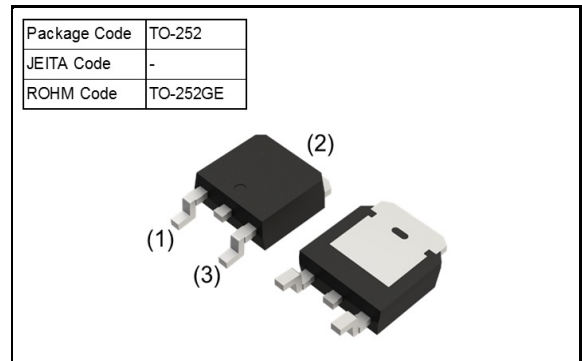
| Parameter | Symbol | Conditions | Limits | Unit |
|-------------------------------------|-----------|--|-----------|------------------|
| Repetitive peak reverse voltage | V_{RM} | Duty ≤ 0.5 | 35 | V |
| Reverse voltage | V_R | Reverse direct voltage | 30 | V |
| Average rectified forward current | I_o | 60Hz half sin wave form, resistive load, $I_o/2$ per diode, $T_c=134^\circ\text{C Max.}$ | 6 | A |
| Peak forward surge current | I_{FSM} | 60Hz half sin wave form, non-repetitive, per diode, $T_a=25^\circ\text{C}$ | 50 | A |
| Junction temperature ⁽¹⁾ | T_j | - | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | - | -40 ~ 150 | $^\circ\text{C}$ |

Note(1) To avoid occurrence of thermal runaway, actual board is to be designed to fulfill $dP/dT_j < 1/R_{\theta JA}$.

Attention

Compared with PN junction diodes, Schottky Barrier Diode is generally high reverse current (IR). The reverse loss of the diode might increase as temperature increasing that causes heat-up and further IR. This phenomenon might end up the thermal destruction(thermal runaway). Therefore please give consideration to the reverse loss and the ambient temperature when using this product.

● Outline



● Inner Circuit



● Packaging Specifications

| Packing | Embossed Tape |
|------------------|---------------|
| Reel Size(mm) | 330 |
| Taping Width(mm) | 16 |
| Quantity(pcs) | 2500 |
| Taping Code | TL |
| Marking | B095BM30 |

● Electrical Characteristics (T_j=25°C unless otherwise specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------|----------------|---------------------|------|------|-------|------|
| Forward voltage ⁽¹⁾ | V _F | I _F =3A | - | - | 0.425 | V |
| Reverse current ⁽¹⁾ | I _R | V _R =30V | - | - | 0.2 | mA |

Note (1) Value per diode

● Thermal Characteristics

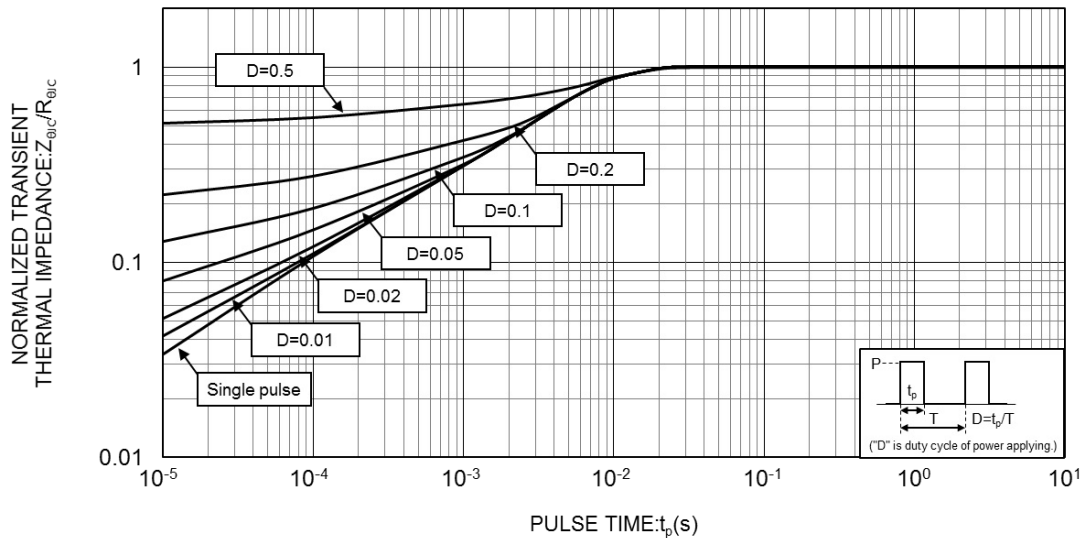
| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|------------------|------|------|------|------|
| Thermal Resistance (Junction to case) ^{(1) (2)} | Per diode | - | - | 4.0 | °C/W |
| | Per device | - | - | 2.2 | °C/W |
| Thermal Resistance (Junction to ambient) ^{(1) (3)} | R _{θJA} | - | - | 75 | °C/W |

Notes (1) Value is guaranteed by design.

(2) Transient dual interface measurement (TDIM) method.

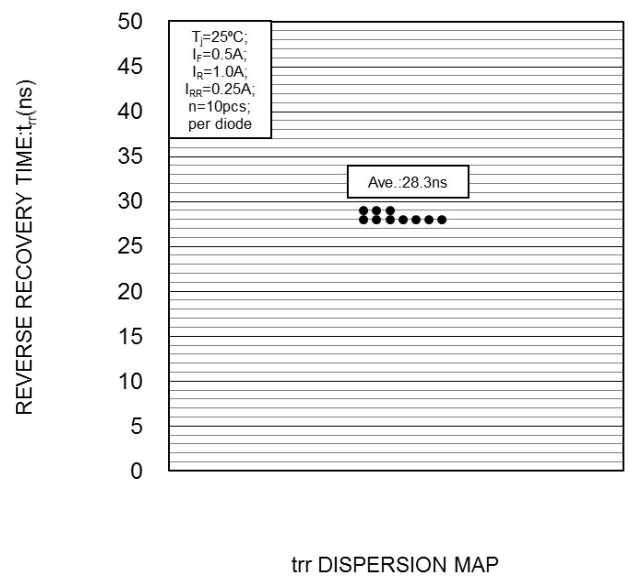
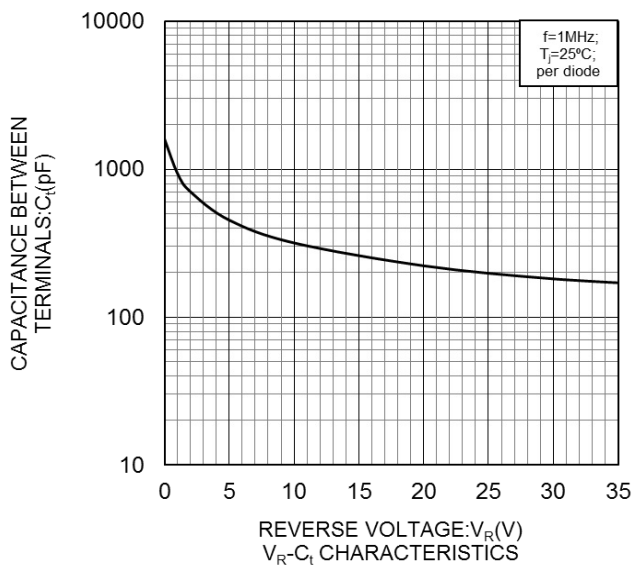
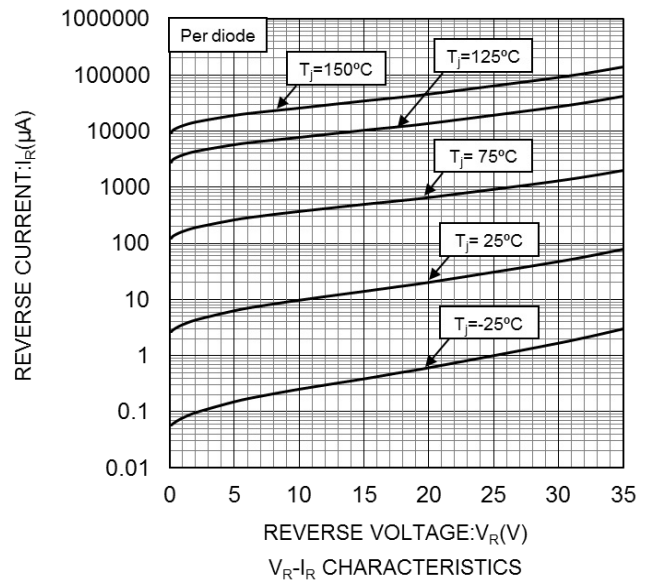
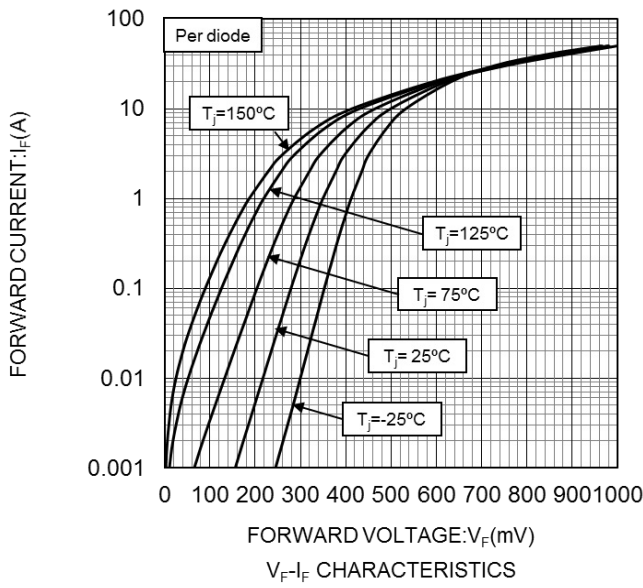
(3) Mounted on 50 x 50 x 1.6mm FR4 board, single-sided copper, 35μm thickness, reference footprint.

● Characteristic Curves

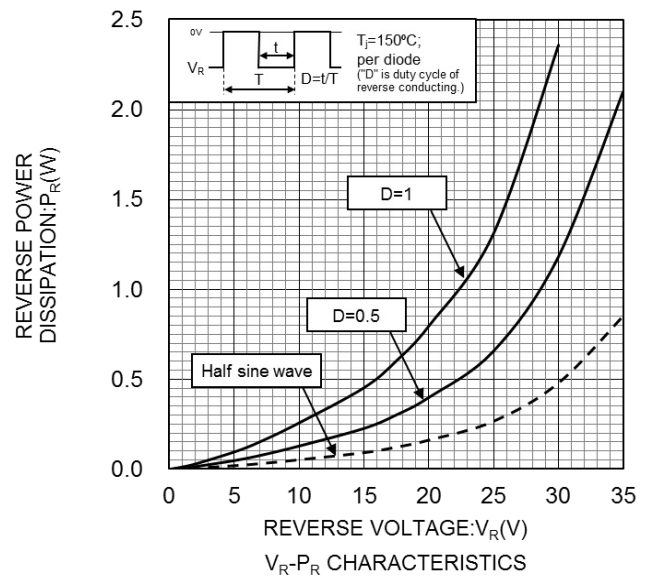
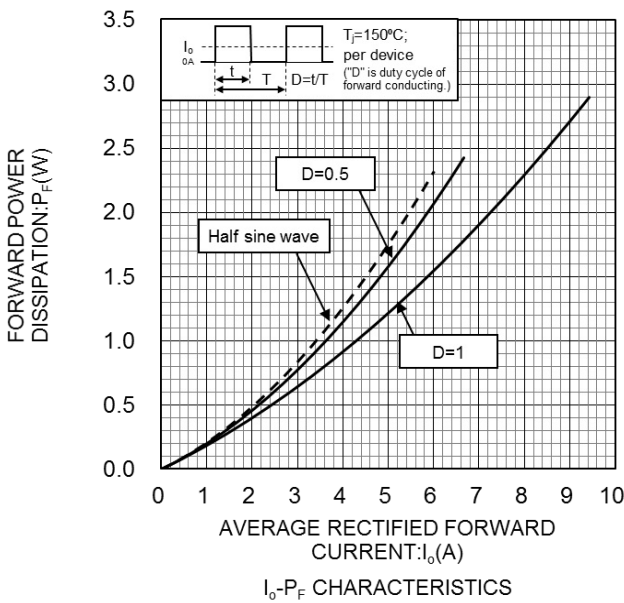
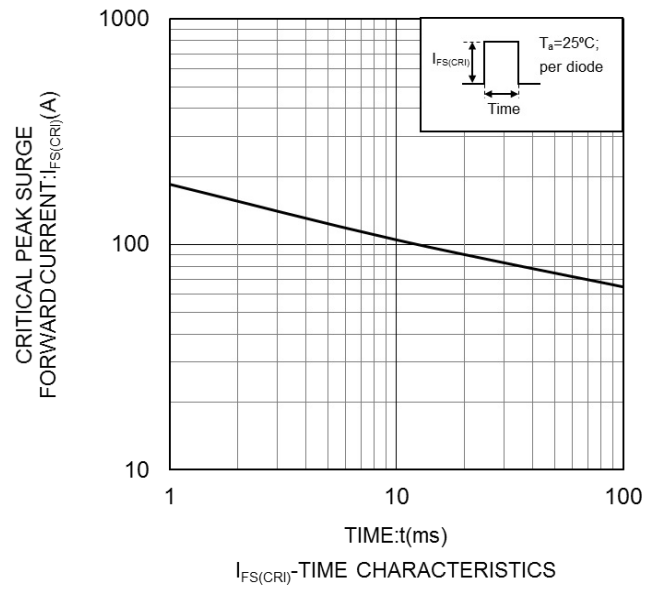
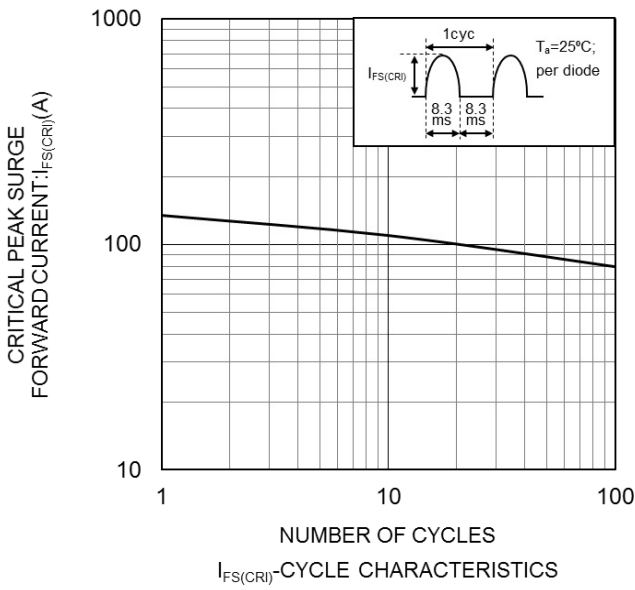


NORMALIZED TRANSIENT THERMAL IMPEDANCE FROM JUNCTION TO CASE (PER DEVICE)

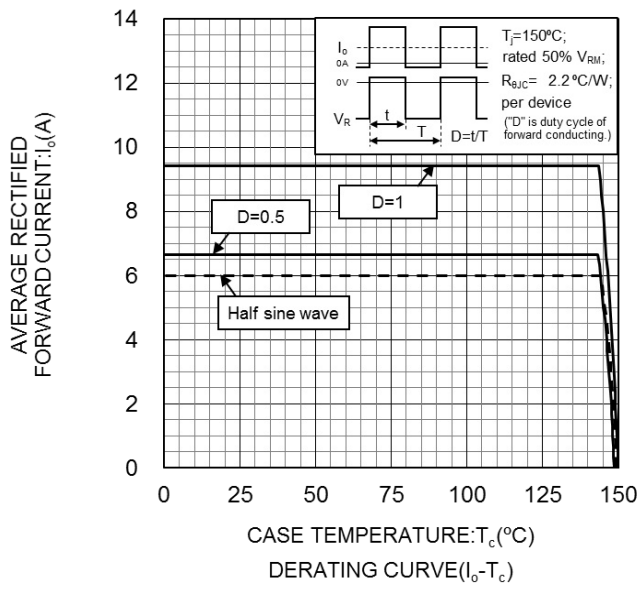
● Characteristic Curves



● Characteristic Curves

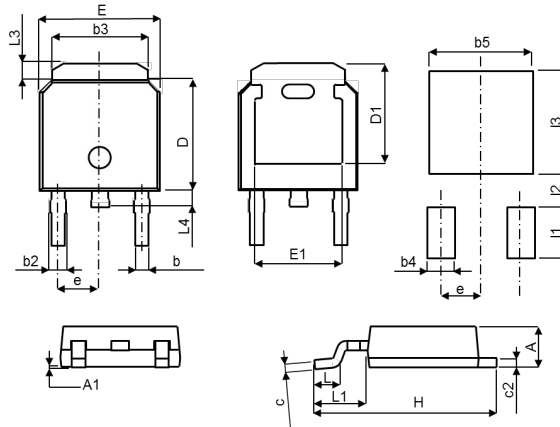


● Characteristic Curves



● Dimensions

TO-252, (TO-252GE)



| DIM | Millimeters | | | Inches | | |
|-----|-------------|---------|-------|--------|---------|-------|
| | Min. | Average | Max. | Min. | Average | Max. |
| A | 2.20 | 2.30 | 2.40 | 0.087 | 0.091 | 0.094 |
| A1 | - | 0.10 | - | - | 0.004 | - |
| b | 0.60 | 0.75 | 0.90 | 0.024 | 0.030 | 0.035 |
| b2 | - | 0.85 | - | - | 0.033 | - |
| b3 | 5.20 | 5.35 | 5.50 | 0.205 | 0.211 | 0.217 |
| c | 0.40 | 0.50 | 0.60 | 0.016 | 0.020 | 0.024 |
| c2 | 0.40 | 0.50 | 0.60 | 0.016 | 0.020 | 0.024 |
| D | 6.00 | 6.10 | 6.40 | 0.236 | 0.240 | 0.252 |
| D1 | - | 5.30 | - | - | 0.209 | - |
| E | 6.40 | 6.60 | 6.80 | 0.252 | 0.260 | 0.268 |
| E1 | - | 4.80 | - | - | 0.189 | - |
| e | - | 2.30 | - | - | 0.091 | - |
| H | 9.40 | 10.00 | 10.40 | 0.370 | 0.394 | 0.409 |
| L | - | 1.50 | - | - | 0.059 | - |
| L1 | - | 2.70 | - | - | 0.106 | - |
| L3 | 0.70 | 1.00 | 1.30 | 0.028 | 0.039 | 0.051 |
| L4 | 0.60 | 0.80 | 1.00 | 0.024 | 0.031 | 0.039 |

| DIM | Millimeters | | | Inches | | |
|-----|-------------|---------|------|--------|---------|------|
| | Min. | Average | Max. | Min. | Average | Max. |
| b4 | - | 1.60 | - | - | 0.063 | - |
| b5 | - | 6.00 | - | - | 0.236 | - |
| l1 | - | 3.00 | - | - | 0.118 | - |
| l2 | - | 2.00 | - | - | 0.079 | - |
| l3 | - | 6.00 | - | - | 0.236 | - |

● Taping (Unit:mm)



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(Note1) Medical Equipment Classification of the Specific Applications

| JAPAN | USA | EU | CHINA |
|-----------|-----------|------------|-----------|
| CLASS III | CLASS III | CLASS II b | CLASS III |
| CLASS IV | | CLASS III | |

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 - Use of the Products in places subject to dew condensation
- The Products are not subject to radiation-proof design.
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- Confirm that operation temperature is within the specified range described in the product specification.
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 - [b] the temperature or humidity exceeds those recommended by ROHM
 - [c] the Products are exposed to direct sunshine or condensation
 - [d] the Products are exposed to high Electrostatic
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