



SANYO Semiconductors

DATA SHEET

SBT250-04J — Schottky Barrier Diode (Twin Type · Cathode Common)

40V, 25A Rectifier

Applications

- High frequency rectification (switching regulators, converters, choppers).

Features

- Guaranteed up to $T_j=150^{\circ}\text{C}$.
- Low forward voltage ($V_F \text{ max}=0.55\text{V}$).
- Short reverse recovery time.
- Low switching noise.
- High reliability due to highly reliable planar structure.
- Attachment workability is good by Mica-less package.

Specifications

Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

| Parameter | Symbol | Conditions | Ratings | Unit |
|--|-----------|---|-------------|--------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | 40 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V_{RSM} | | 44 | V |
| Average Output Current | I_O | 50Hz resistive load, Sine wave $T_c=86^{\circ}\text{C}$ | 25 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | 120 | A |
| Junction Temperature | T_j | | -55 to +150 | $^{\circ}\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^{\circ}\text{C}$ |

Electrical Characteristics at $T_a=25^{\circ}\text{C}$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|---------------|---|---------|-----|------|-------------------------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=3\text{mA}$, $T_j=25^{\circ}\text{C}^*$ | 40 | | | V |
| Forward Voltage | V_F | $I_F=10\text{A}$, $T_j=25^{\circ}\text{C}^*$ | | | 0.55 | V |
| Reverse Current | I_R | $V_R=20\text{V}$, $T_j=25^{\circ}\text{C}^*$ | | | 0.3 | mA |
| Interterminal Capacitance | C | $V_R=10\text{V}$, $T_j=25^{\circ}\text{C}^*$ | | 510 | | pF |
| Thermal Resistance | $R_{th(j-c)}$ | Junction-Case : Smoothed DC | | | 3.5 | $^{\circ}\text{C} / \text{W}$ |

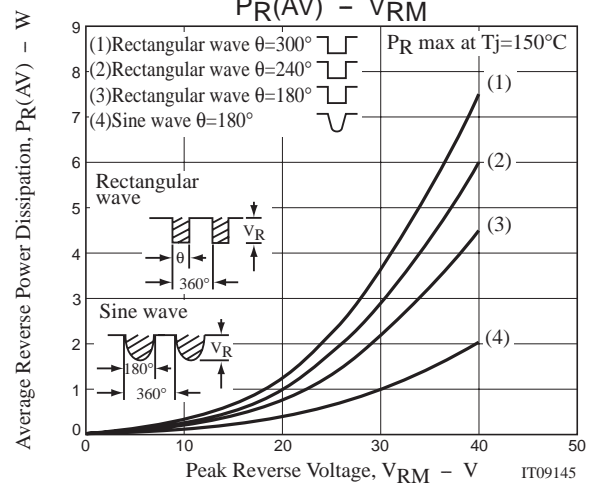
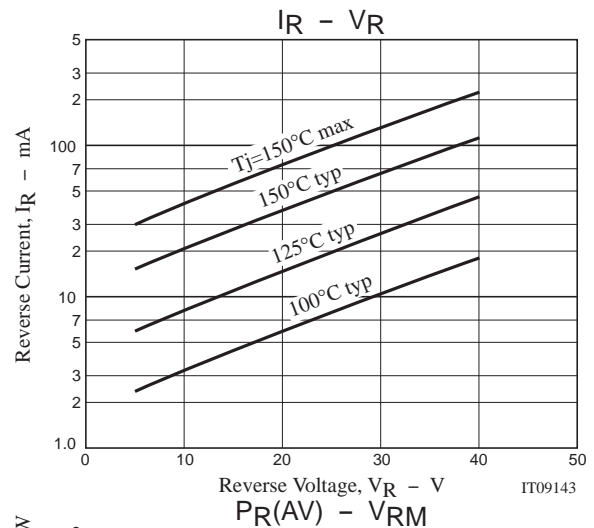
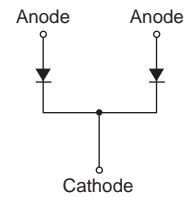
Note) * : Value per element

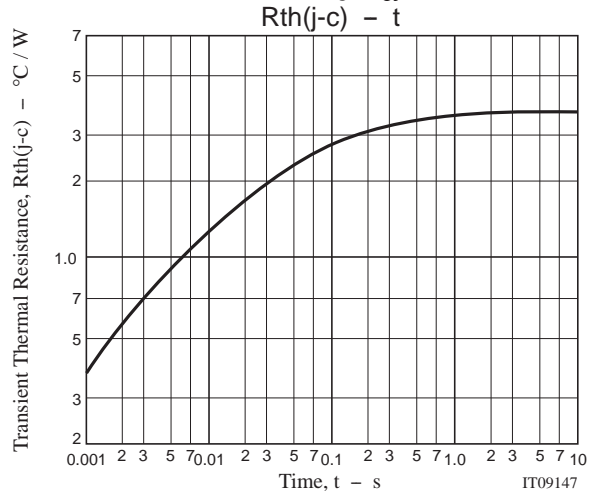
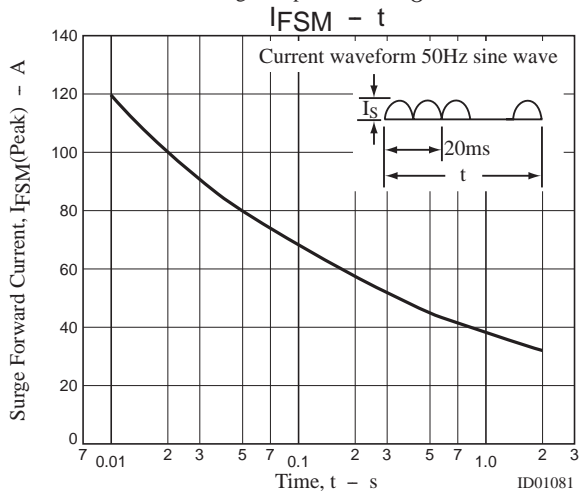
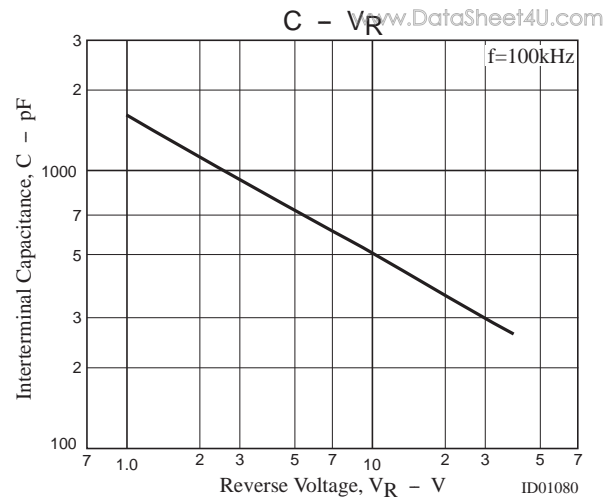
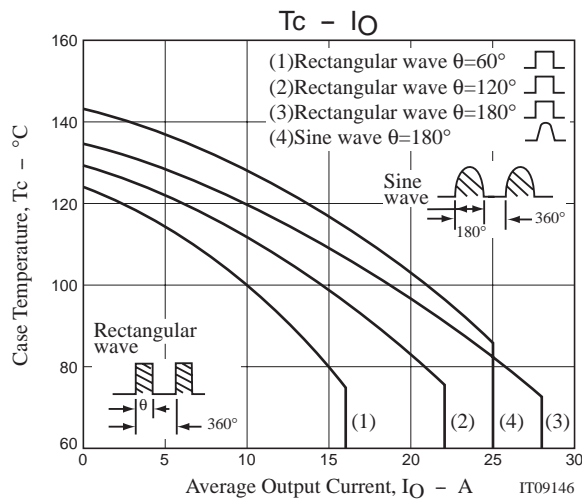
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unit : mm
1178A





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