

SBT80-04GS — Schottky Barrier Diode (Twin Type • Cathode Common) 40V, 8A Rectifier

Applications

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

Features

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

Specifications

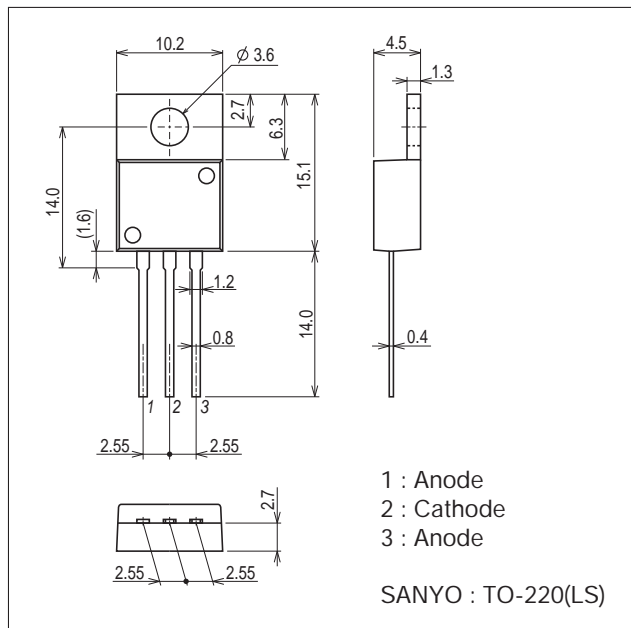
Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

| 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 $T_c=119^{\circ}\text{C}$ | 8 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | 80 | A |
| Junction Temperature | T_j | | -55 to +150 | $^{\circ}\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^{\circ}\text{C}$ |

Package Dimensions

unit : mm (typ)

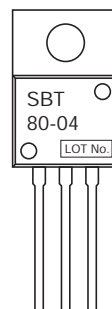
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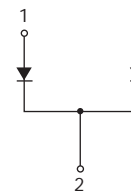
Product & Package Information

- Package : TO-220(LS)
- JEITA, JEDEC : SC-46, TO-220AB
- Minimum Packing Quantity : 100 pcs./bag, 50 pcs./magazine

Marking



Electrical Connection

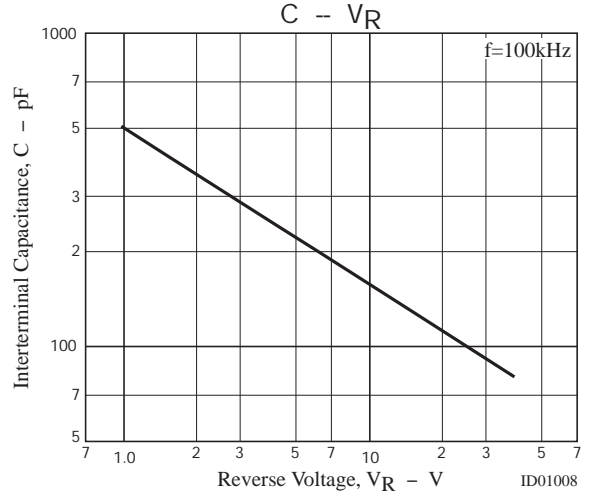
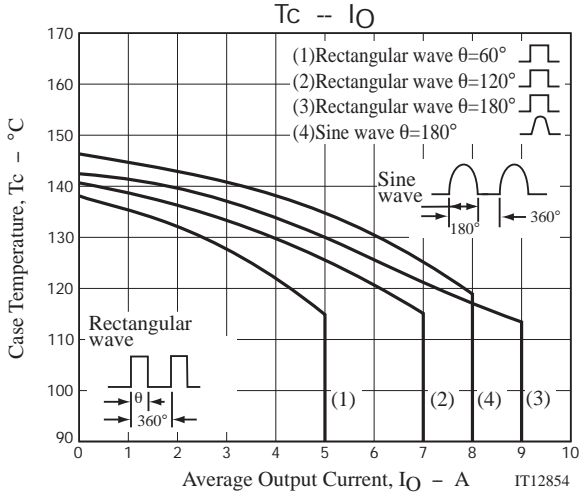
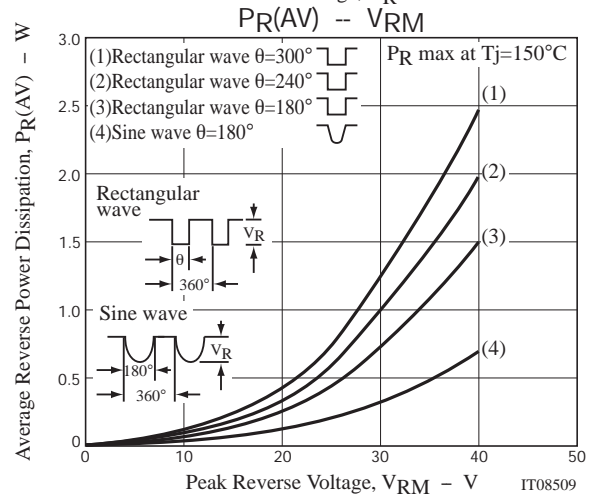
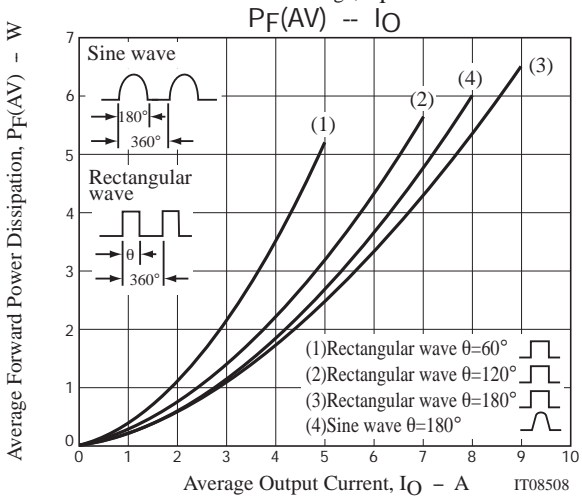
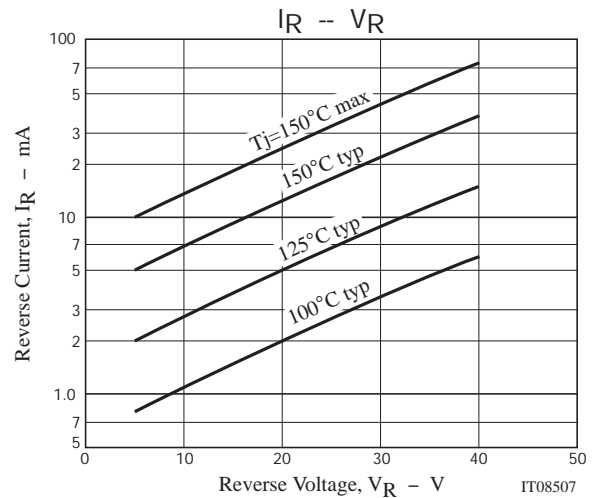
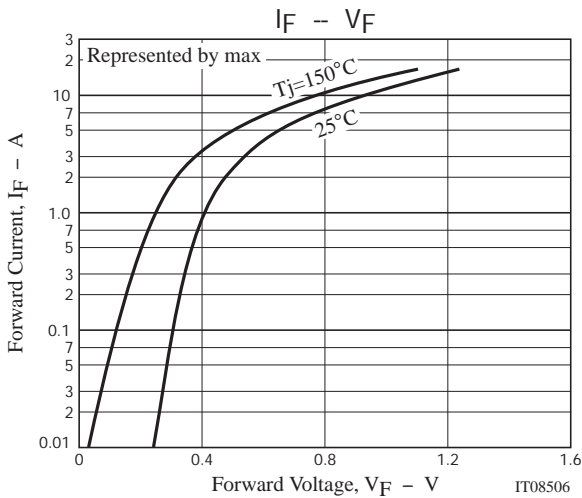


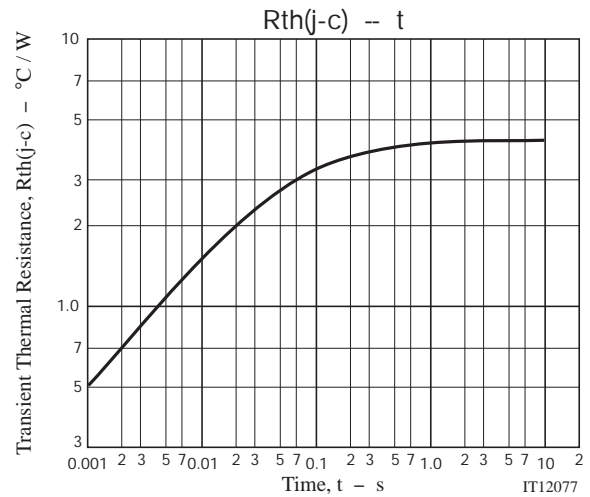
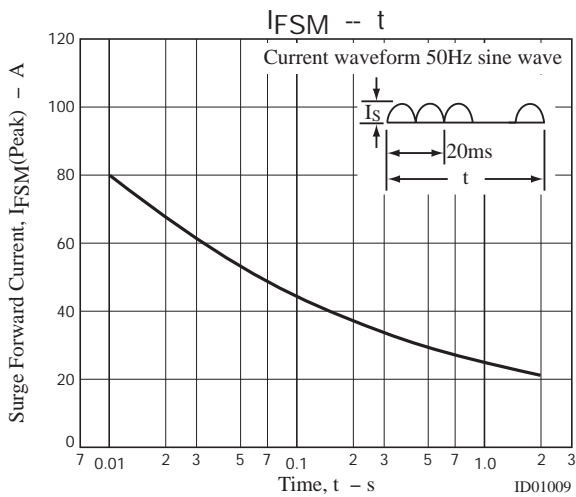
SBT80-04GS

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|---------------|--|---------|-----|------|-----------------------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=1\text{mA}$, $T_j=25^\circ\text{C}$ * | 40 | | | V |
| Forward Voltage | V_F | $I_F=3.0\text{A}$, $T_j=25^\circ\text{C}$ * | | | 0.55 | V |
| Reverse Current | I_R | $V_R=20\text{V}$, $T_j=25^\circ\text{C}$ * | | | 0.1 | mA |
| Interterminal Capacitance | C | $V_R=10\text{V}$, $T_j=25^\circ\text{C}$ * | | 160 | | pF |
| Thermal Resistance | $R_{th(j-c)}$ | Junction-Case : Smoothed DC | | | 4.6 | $^\circ\text{C} / \text{W}$ |

Note) * : Value per element





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