

ZHCS400

SILICON HIGH CURRENT SCHOTTKY BARRIER DIODE

Features

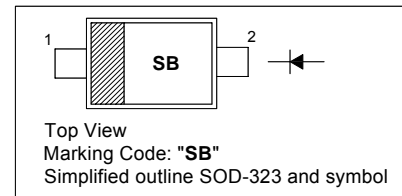
- Low V_F
- High current capability
- Miniature surface mount package

Applications

- DC-DC converters
- Mobile telecom

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |

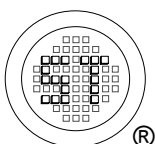


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---|-----------|---------------|------------------|
| Reverse Voltage | V_R | 40 | V |
| Forward Current (Continuous) | I_F | 400 | mA |
| Average Peak Forward Current | I_{FAV} | 1000 | mA |
| Non-Repetitive Forward Current $t \leq 100\text{ }\mu\text{s}$ $t \leq 10\text{ ms}$ | I_{FSM} | 6.75 3 | A A |
| Power Dissipation | P_{tot} | 250 | mW |
| Junction Temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_s | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|--|-------------|---------------------------------|---------------------------------|--|---------------|
| Reverse Breakdown Voltage at $I_R = 200\text{ }\mu\text{A}$ | $V_{(BR)R}$ | 40 | - | - | V |
| Forward Voltage at $I_F = 50\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 250\text{ mA}$ at $I_F = 400\text{ mA}$ at $I_F = 750\text{ mA}$ at $I_F = 1000\text{ mA}$ at $I_F = 1500\text{ mA}$ | V_F | - - - - - - - | - - - - - - - | 300 350 460 500 670 780 1050 | mV |
| Reverse Current at $V_R = 30\text{ V}$ | I_R | - | - | 40 | μA |
| Diode Capacitance at $V_R = 25\text{ V}$, $f = 1\text{ MHz}$ | C_D | - | 20 | - | pF |
| Reverse Recovery Time Switched from $I_F = 500\text{ mA}$ to $I_R = 500\text{ mA}$, Measured at $I_R = 50\text{ mA}$ | t_{rr} | - | 10 | - | ns |



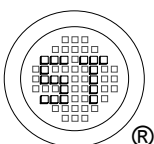
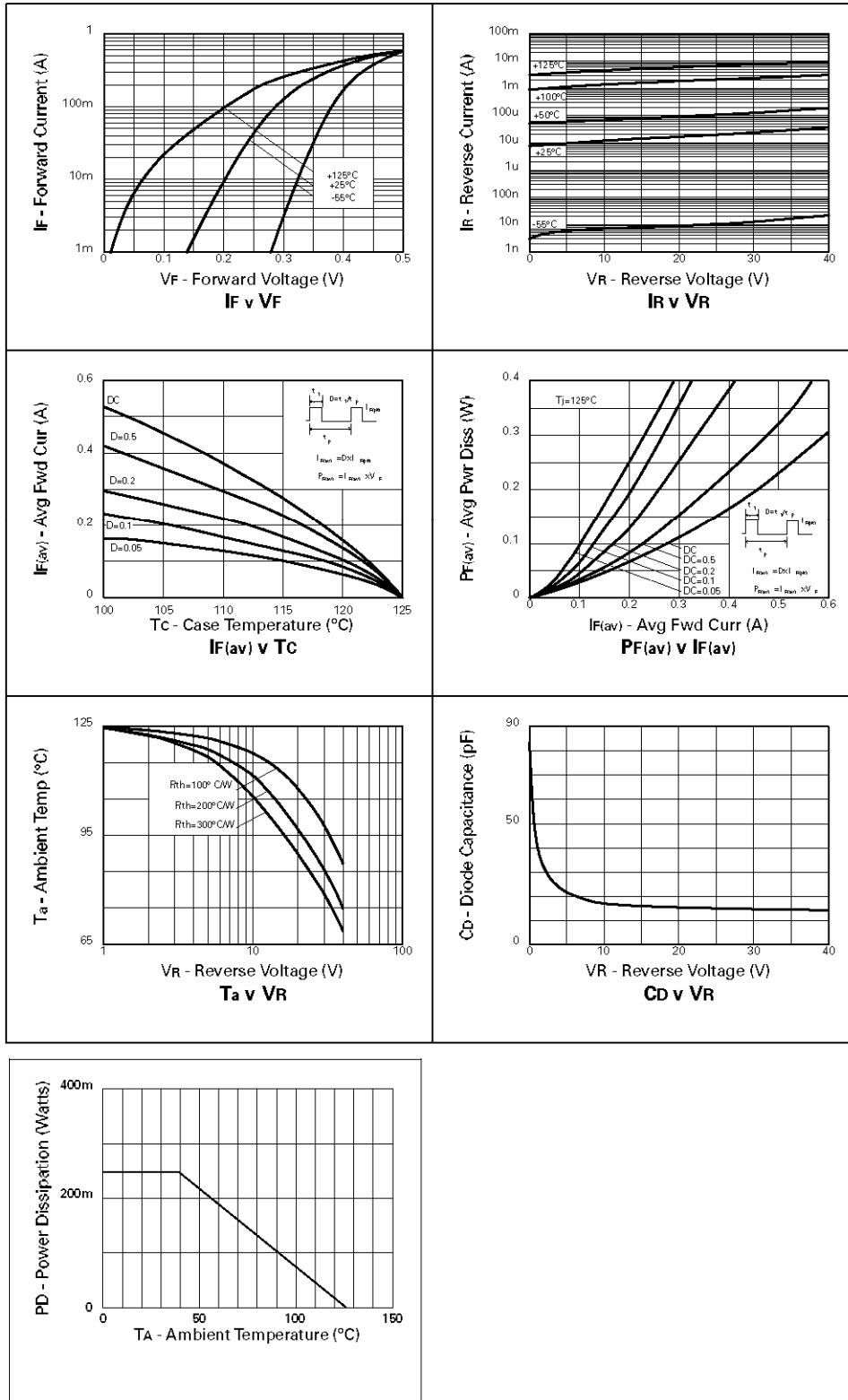
SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 0506098

Dated : 01/09/2006



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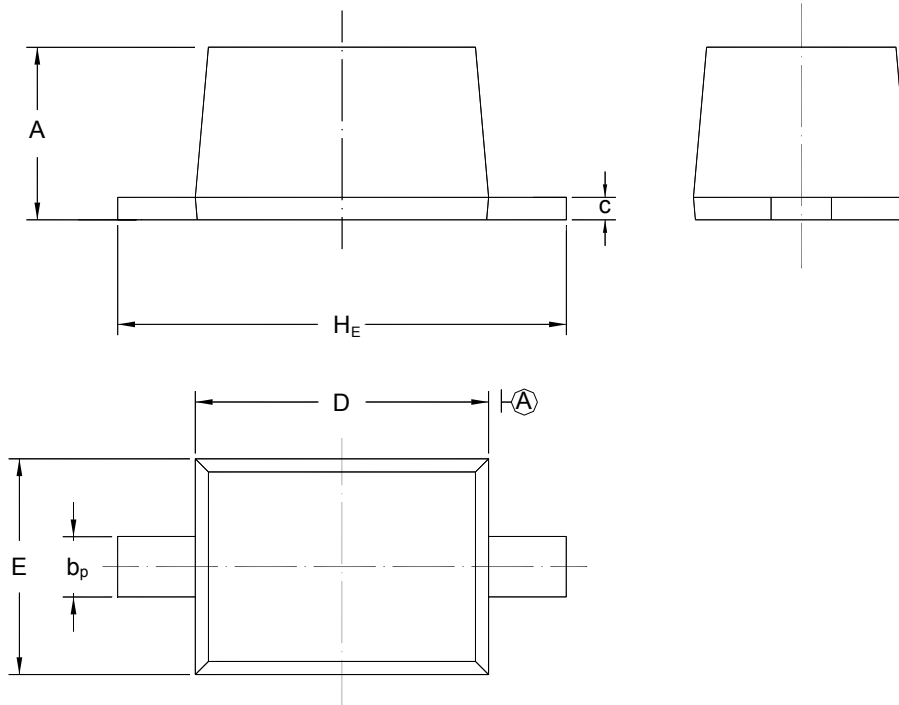
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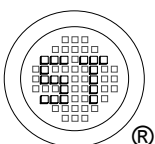
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | b _p | C | D | E | H _E |
|------|--------------|----------------|--------------|--------------|--------------|----------------|
| mm | 1.10 0.80 | 0.40 0.25 | 0.15 0.00 | 1.80 1.60 | 1.35 1.15 | 2.80 2.30 |



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