

**DESCRIPTION**

The 2SB799 is available in the SOT-89 package.

APPLICATION

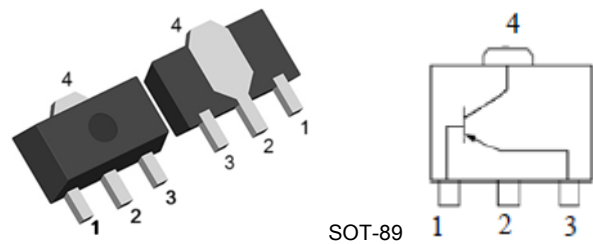
Switching and Amplifying in various electrical and electronic circuits.

ORDERING INFORMATION

| Package Type | Part Number |
|--|---------------|
| SOT-89 | 2SB799 |
| SPQ | 1,000pcs/Reel |
| AiT provides all RoHS Compliant Products | |

FEATURE

- Low Collector Saturation Voltage:
 $V_{CE(SAT)} < -0.5V$ ($I_C = -800mA$, $I_B = -80mA$)
- Complements to NPN type 2SD1000

PIN DESCRIPTION

| PIN# | DESCRIPTION |
|------|-------------|
| 1 | Base |
| 2,4 | Collector |
| 3 | Emitter |

ABSOLUTE MAXIMUM RATINGS

$T_A = 25^\circ C$, unless otherwise specified.

| | |
|---|---------------|
| V_{CBO} , Collector-Base Voltage | -40 V |
| V_{CEO} , Collector-Emitter Voltage | -25 V |
| V_{EBO} , Emitter-Base Voltage | -6 V |
| I_C , Collector Current-Continuous | -1.5 A |
| P_{tot} , Total power dissipation ($T_A = 25^\circ C$) ⁽¹⁾ | -1 W |
| T_J , Junction Temperature | 150 °C |
| T_{stg} , Storage Temperature | -55 ~ +150 °C |

(1) Mounted on printed circuit board.

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

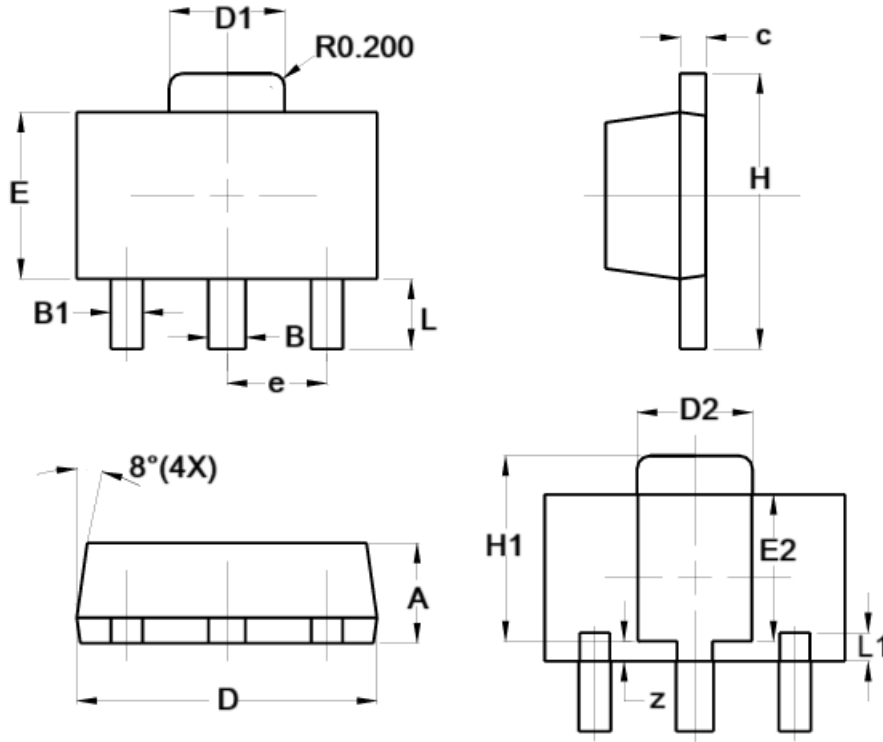
**ELECTRICAL CHARACTERISTICS** $T_A=25^{\circ}\text{C}$ unless otherwise specified.

| Parameter | Symbols | Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------------|---------------|--|------|------|------|------|
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -2\text{ mA}, I_B = 0$ | -25 | - | - | V |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = -100\ \mu\text{A}, I_E = 0$ | -40 | - | - | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = -100\ \mu\text{A}, I_C = 0$ | -6 | - | - | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -35\text{ V}, I_E = 0$ | - | - | -100 | nA |
| DC Current Gain | h_{FE} | $V_{CE} = -1\text{ V}, I_C = -100\text{ mA}$ | 200 | - | 300 | - |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -800\text{ mA}, I_B = -80\text{ mA},$ | - | - | -0.5 | V |
| Transition Frequency | f_T | $V_{CE} = 10\text{ V}, I_E = 50\text{ mA}$ $f = 100\text{ MHz}$ | 200 | - | - | MHz |



PACKAGE INFORMATION

Dimension in SOT-89 (Unit: mm)



| Symbol | Millimeter | |
|--------|------------|-------|
| | Min. | Max. |
| A | 1.400 | 1.600 |
| B | 0.500 | 0.620 |
| B1 | 0.420 | 0.540 |
| c | 0.350 | 0.430 |
| D | 4.440 | 4.600 |
| D1 | 1.620 | 1.830 |
| D2 | 1.610 | 1.810 |
| E | 2.400 | 2.600 |
| E2 | 2.050 | 2.350 |
| e | 1.500 TYP. | |
| H | 3.950 | 4.250 |
| H1 | 2.630 | 2.930 |
| L | 0.900 | 1.200 |
| L1 | 0.327 | 0.527 |
| z | 0.200 | 0.400 |



IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc. integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or server property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.