

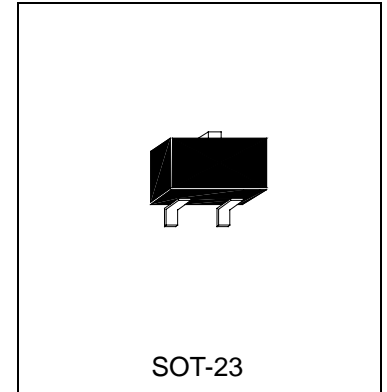


HMBT6427

NPN EPITAXIAL PLANAR TRANSISTOR

Description

Darlington Transistor



Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature..... +150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 225 mW
- Maximum Voltages and Currents (Ta=25°C)
 VCBO Collector to Base Voltage 40 V
 VCEO Collector to Emitter Voltage..... 40 V
 VEBO Emitter to Base Voltage..... 12 V
 IC Collector Current 500 mA

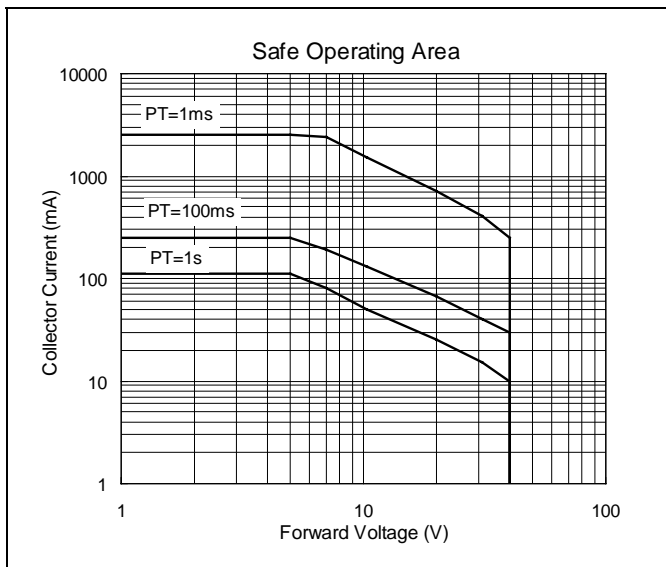
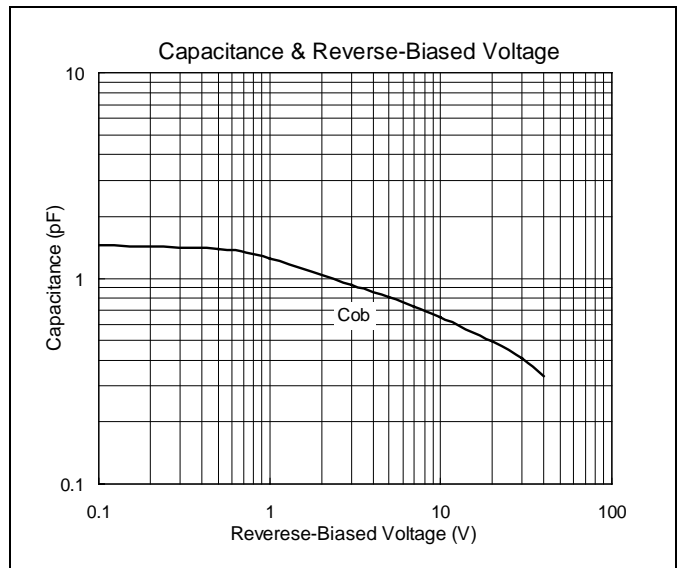
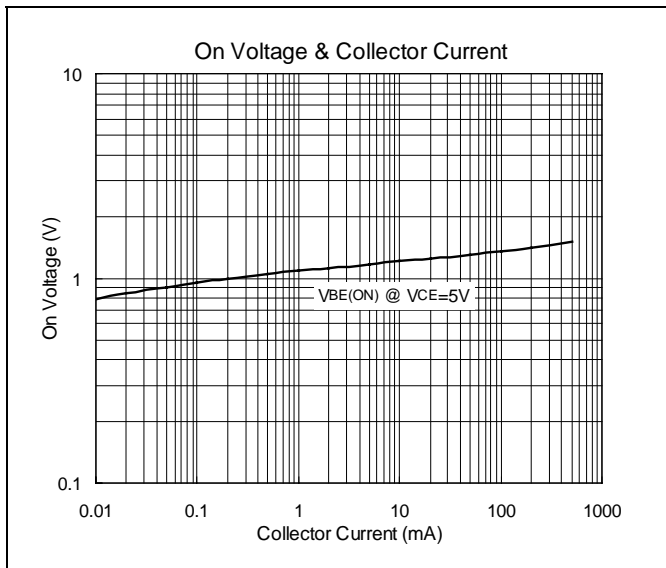
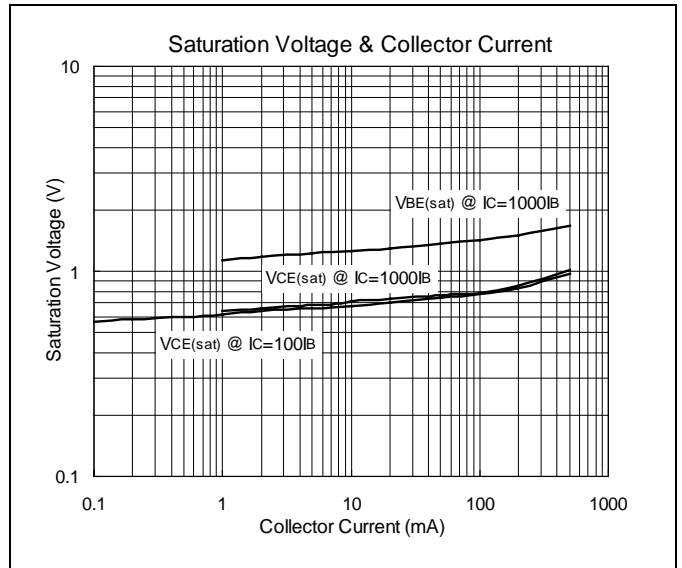
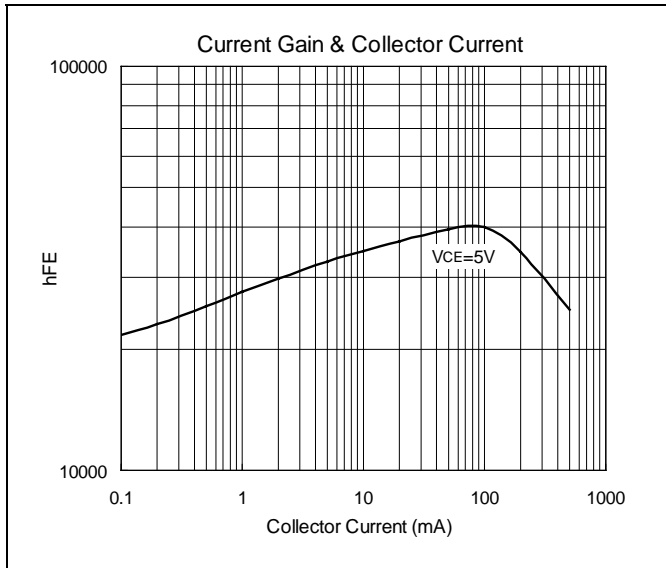
Characteristics (Ta=25°C)

| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|------------|------|------|------|------|--------------------|
| BVCBO | 40 | - | - | V | IC=100uA |
| BVCEO | 40 | - | - | V | IC=10mA |
| VEBO | 12 | - | - | V | IE=10uA |
| ICBO | - | - | 50 | nA | VCB=30V |
| ICEO | - | - | 1 | uA | VCB=25V |
| IEBO | - | - | 50 | nA | VEB=10V |
| *VCE(sat)1 | - | - | 1.2 | V | IC=50mA, IB=0.5mA |
| *VCE(sat)2 | - | - | 1.5 | V | IC=500mA, IB=0.5mA |
| *VBE(sat) | - | - | 2 | V | IC=500mA, IB=0.5mA |
| VBE(on) | - | - | 1.75 | V | VCE=5V, IC=50mA |
| *hFE1 | 10 | - | 100 | K | VCE=5V, IC=10mA |
| *hFE2 | 20 | - | 200 | K | VCE=5V, IC=100mA |
| *hFE3 | 14 | - | 140 | K | VCE=5V, IC=500mA |
| Cob | - | - | 7 | pF | VCB=10V, f=1MHz |

*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

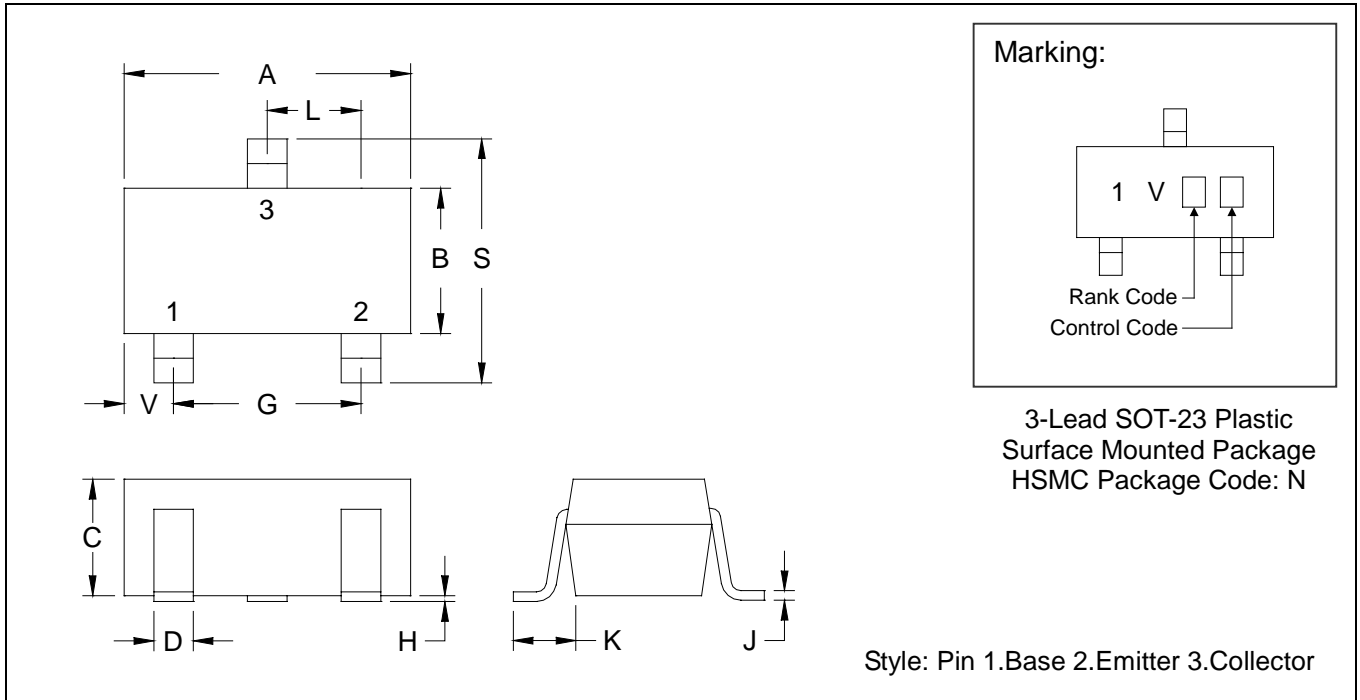


Characteristics Curve





SOT-23 Dimension



*: Typical

| DIM | Inches | | Millimeters | | DIM | Inches | | Millimeters | |
|-----|--------|--------|-------------|------|-----|--------|--------|-------------|-------|
| | Min. | Max. | Min. | Max. | | Min. | Max. | Min. | Max. |
| A | 0.1102 | 0.1204 | 2.80 | 3.04 | J | 0.0034 | 0.0070 | 0.085 | 0.177 |
| B | 0.0472 | 0.0630 | 1.20 | 1.60 | K | 0.0128 | 0.0266 | 0.32 | 0.67 |
| C | 0.0335 | 0.0512 | 0.89 | 1.30 | L | 0.0335 | 0.0453 | 0.85 | 1.15 |
| D | 0.0118 | 0.0197 | 0.30 | 0.50 | S | 0.0830 | 0.1083 | 2.10 | 2.75 |
| G | 0.0669 | 0.0910 | 1.70 | 2.30 | V | 0.0098 | 0.0256 | 0.25 | 0.65 |
| H | 0.0005 | 0.0040 | 0.013 | 0.10 | | | | | |

- Notes: 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.
 2.Controlling dimension: millimeters.
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel: 886-3-5983621~5 Fax: 886-3-5982931



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.