



**2SC2873-O**  
**2SC2873-Y**

**Features**

- Halogen free available upon request by adding suffix "-HF"
- Low saturation voltage
- High speed switching time
- Complementary to 2SA1213
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

**Maximum Ratings**

| Symbol           | Rating                      | Rating      | Unit |
|------------------|-----------------------------|-------------|------|
| V <sub>CEO</sub> | Collector-Emitter Voltage   | 50          | V    |
| V <sub>CBO</sub> | Collector-Base Voltage      | 50          | V    |
| V <sub>EBO</sub> | Emitter-Base Voltage        | 5.0         | V    |
| I <sub>C</sub>   | Collector Current           | 2.0         | A    |
| P <sub>C</sub>   | Collector power dissipation | 0.5         | W    |
| T <sub>J</sub>   | Junction Temperature        | 150         | °C   |
| T <sub>STG</sub> | Storage Temperature         | -55 to +150 | °C   |

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

| Symbol | Parameter | Min | Typ | Max | Units |
|--------|-----------|-----|-----|-----|-------|
|--------|-----------|-----|-----|-----|-------|

**OFF CHARACTERISTICS**

|                      |  |     |     |     |                  |
|----------------------|--|-----|-----|-----|------------------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage<br>(I <sub>C</sub> =1mA <sub>dc</sub> , I <sub>B</sub> =0) | 50  | --- | --- | Vdc              |
| V <sub>(BR)CBO</sub> | Collector-Base Breakdown Voltage<br>(I <sub>C</sub> =0.1mA <sub>dc</sub> , I <sub>B</sub> =0)  | 50  | --- | --- | Vdc              |
| V <sub>(BR)EBO</sub> | Emitter-Base Breakdown Voltage<br>(I <sub>E</sub> =0.1mA <sub>dc</sub> , I <sub>C</sub> =0)    | 5.0 | --- | --- | Vdc              |
| I <sub>CBO</sub>     | Collector-Base Cutoff Current<br>(V <sub>CB</sub> =50Vdc, I <sub>E</sub> =0)                   | --- | --- | 0.1 | uA <sub>dc</sub> |
| I <sub>EBO</sub>     | Emitter-Base Cutoff Current<br>(V <sub>EB</sub> =5.0Vdc, I <sub>C</sub> =0)                    | --- | --- | 0.1 | uA <sub>dc</sub> |

**ON CHARACTERISTIC**

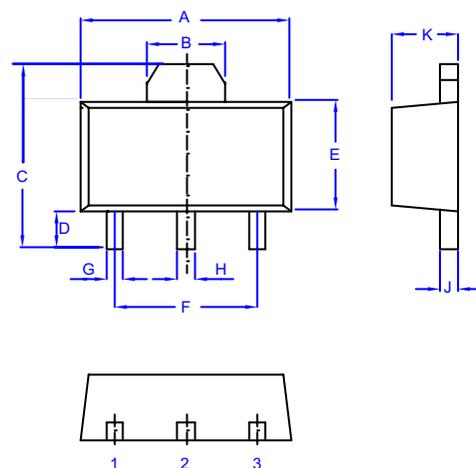
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|----------------------|---|-----|-----|-----|-----|
| h <sub>FE(1)</sub>   | DC Current Gain<br>(I <sub>C</sub> =0.5A <sub>dc</sub> , V <sub>CE</sub> =2.0Vdc)                                   | 70  | --- | 240 | --- |
| h <sub>FE(2)</sub>   | DC Current Gain *<br>(I <sub>C</sub> =2.0A <sub>dc</sub> , V <sub>CE</sub> =2.0Vdc)                                 | 20  | --- | --- | --- |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage<br>(I <sub>C</sub> =1.0A <sub>dc</sub> , I <sub>B</sub> =0.05A <sub>dc</sub> ) | --- | --- | 0.5 | Vdc |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage<br>(I <sub>C</sub> =1.0A <sub>dc</sub> , I <sub>B</sub> =0.05A <sub>dc</sub> )      | --- | --- | 1.2 | Vdc |
| f <sub>T</sub>       | Transition Frequency<br>(V <sub>CE</sub> =2.0Vdc, I <sub>C</sub> =0.5A <sub>dc</sub> )                              | --- | 120 | --- | MHz |
| C <sub>ob</sub>      | Collector output capacitance<br>(V <sub>CB</sub> =10Vdc, I <sub>E</sub> =0, f=1.0MHz)                               | --- | 30  | --- | pF  |

**CLASSIFICATION OF H<sub>FE(M)</sub>**

| Rank    | O      | Y       |
|---------|--------|---------|
| Range   | 70-140 | 120-240 |
| Marking | MO     | MY      |

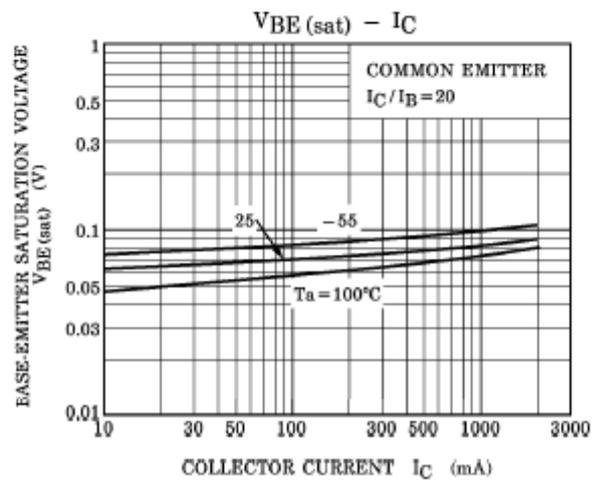
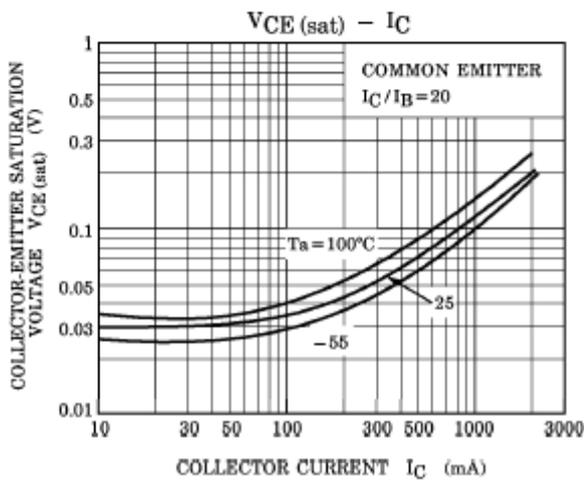
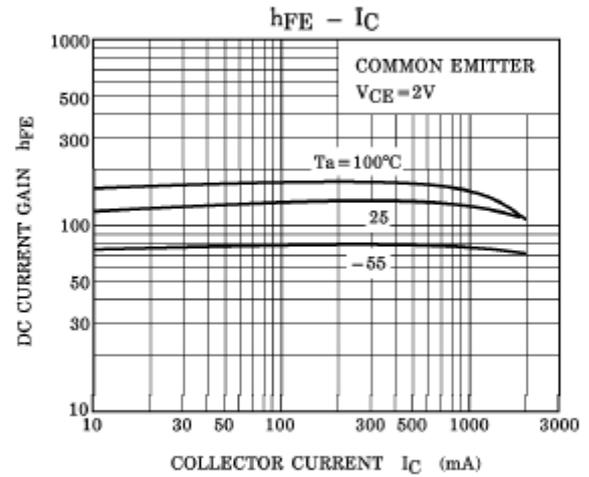
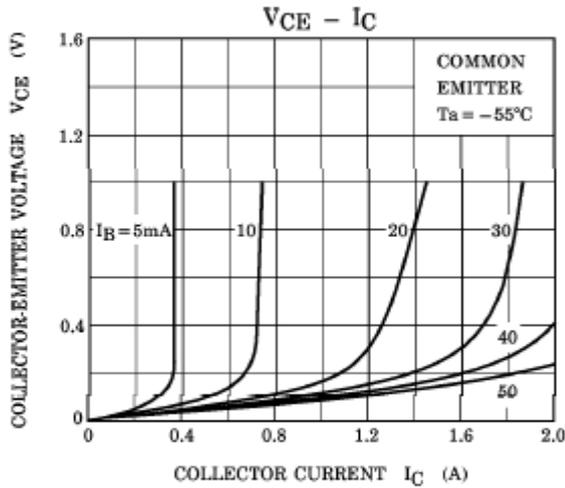
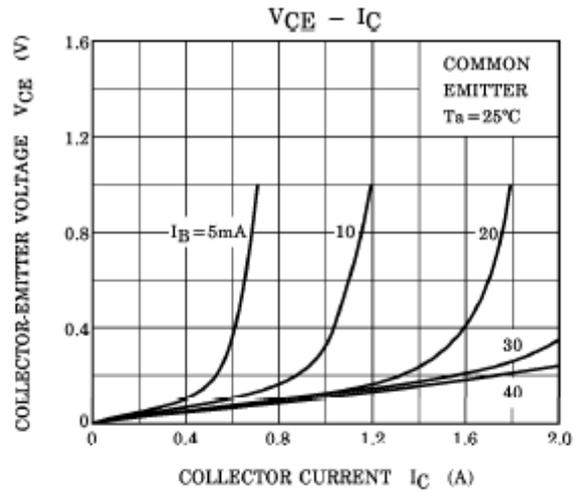
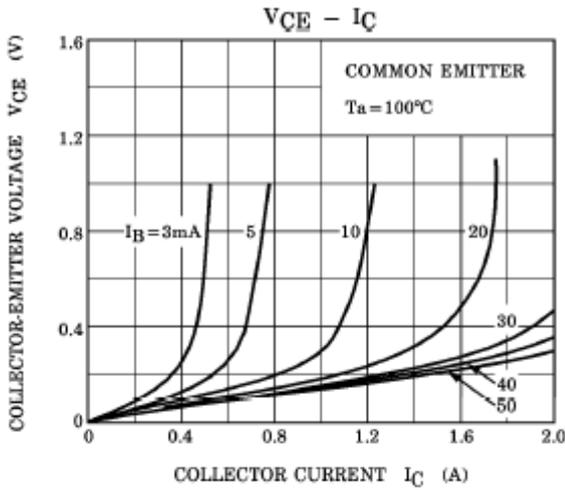
**NPN Silicon Epitaxial Transistors**

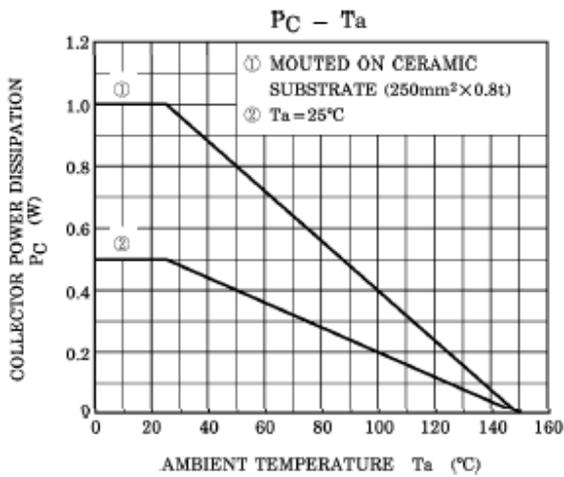
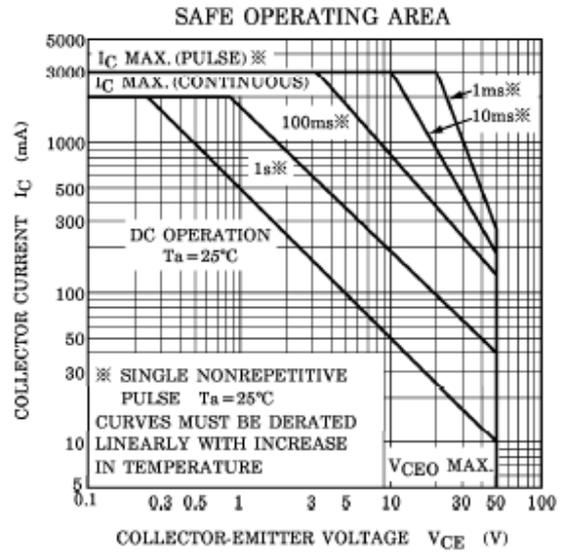
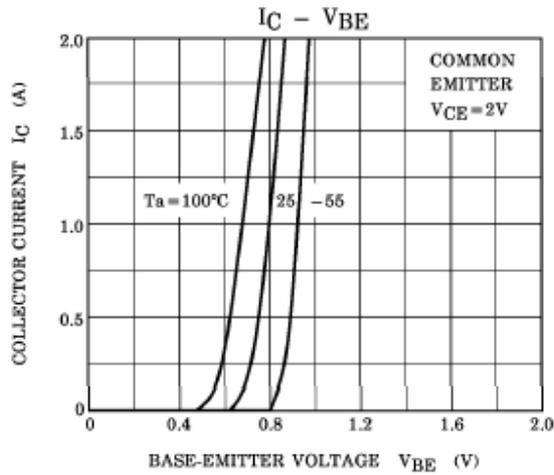
**SOT-89**



1. Base
2. Collector
3. Emitter

| DIM | DIMENSIONS |      |      |      | NOTES |
|-----|------------|------|------|------|-------|
|     | INCHES     |      | MM   |      |       |
|     | MIN        | MAX  | MIN  | MAX  |       |
| A   | .173       | .181 | 4.39 | 4.60 |       |
| B   | .063       | .071 | 1.60 | 1.80 |       |
| C   | .154       | .165 | 3.91 | 4.19 |       |
| D   | .031       | .039 | 0.80 | 1.00 |       |
| E   | .092       | .100 | 2.34 | 2.54 |       |
| F   | .118       | ---- | 3.00 | ---- | TYP   |
| G   | .013       | .019 | 0.33 | 0.48 |       |
| H   | .015       | .021 | 0.38 | 0.53 |       |
| J   | .015       | .016 | 0.38 | 0.41 |       |
| K   | .055       | .063 | 1.40 | 1.60 |       |







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### Ordering Information :

| Device         | Packing                  |
|----------------|--------------------------|
| Part Number-TP | Tape & Reel; 1 Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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