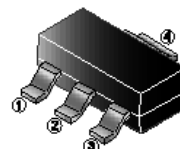


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- For AF Driver and Output Stages
- High Collector Current
- Low Collector-Emitter Saturation Voltage
- Complementary Types: BCP53-C (PNP)

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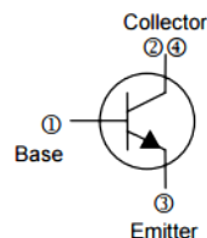


PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|---------|------|-------------|
| SOT-223 | 2.5K | 13 inch |

ORDER INFORMATION

| Part Number | Type |
|-------------|---------------------------------|
| BCP56-16-C | Lead (Pb)-free and Halogen-free |



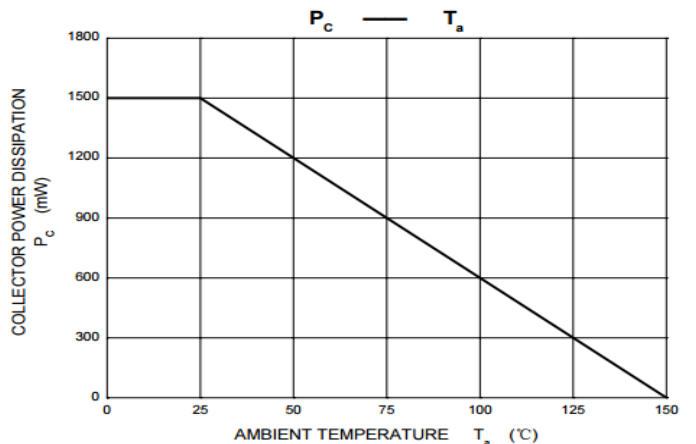
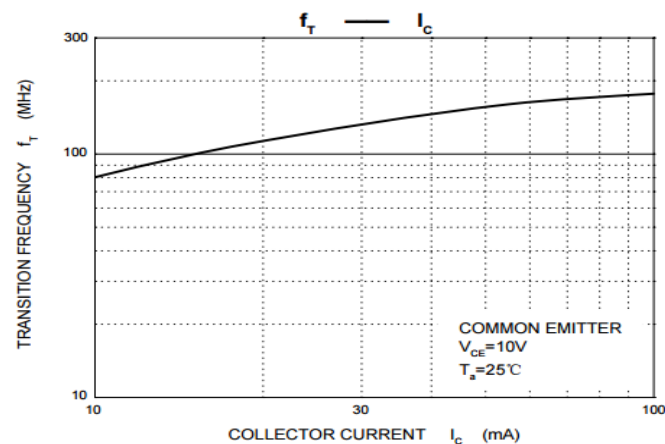
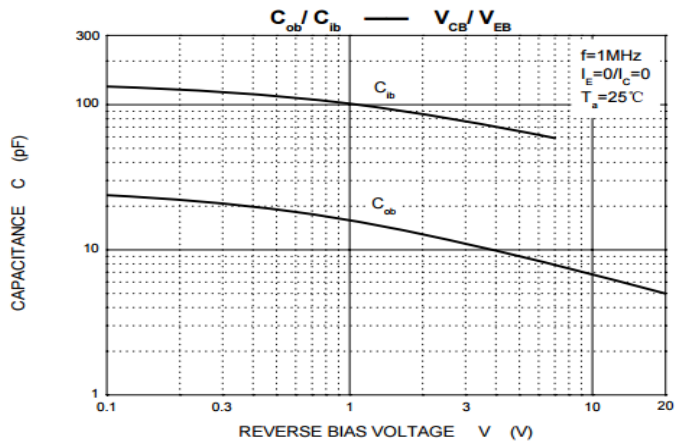
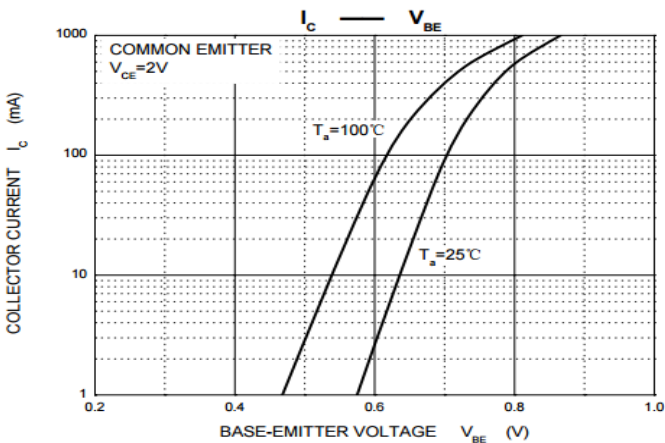
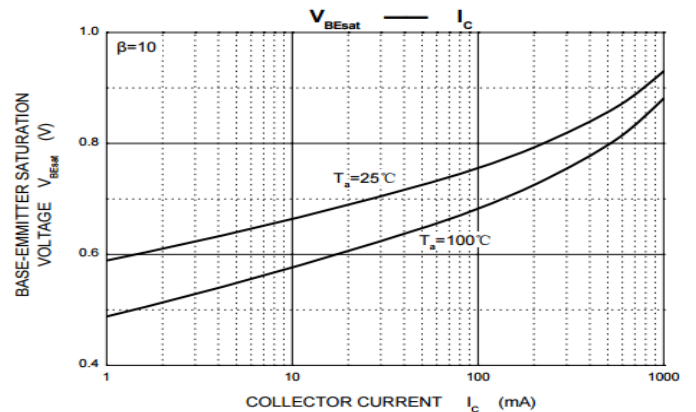
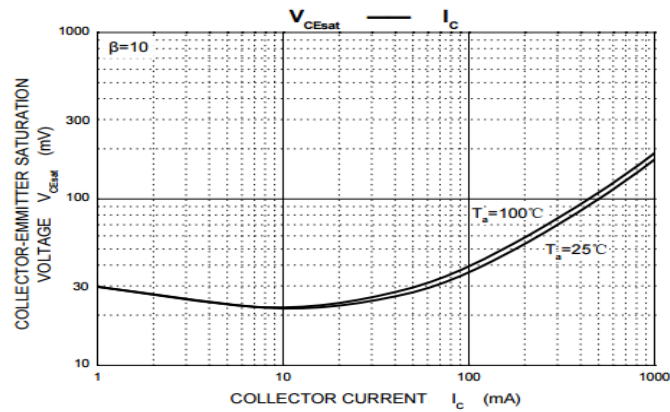
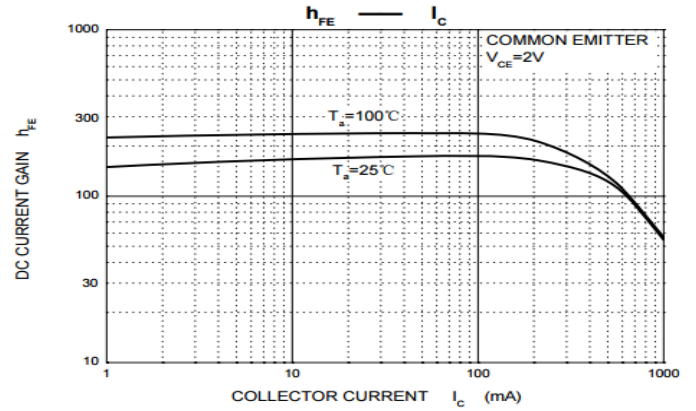
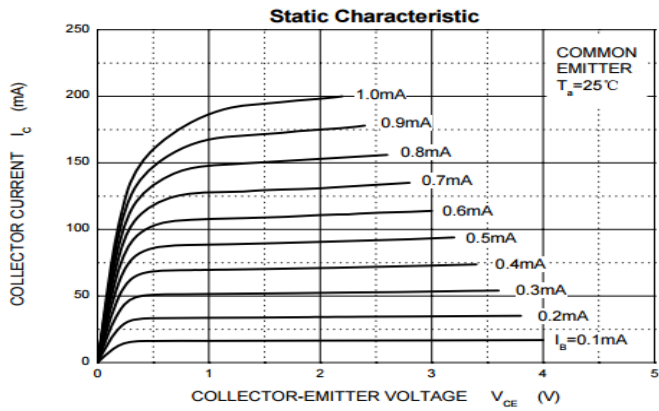
ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

| Parameter | Symbol | Ratings | Unit |
|---|-----------------------------------|---------|------|
| Collector-Base Voltage | V _{CBO} | 100 | V |
| Collector-Emitter Voltage | V _{CEO} | 80 | V |
| Emitter-Base Voltage | V _{EBO} | 5 | V |
| Collector Current-Continuous | I _C | 1 | A |
| Collector Power Dissipation | P _C | 1.5 | W |
| Thermal Resistance from Junction-Ambient | R _{θJA} | 83.3 | °C/W |
| Operating Junction, Storage Temperature Range | T _J , T _{STG} | -55~150 | °C |

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

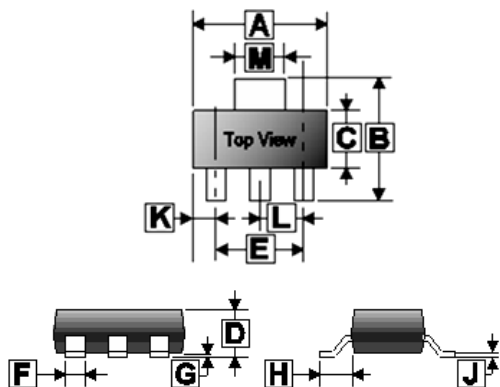
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--------------------------------------|----------------------|------|------|------|------|--|
| Collector-Base Breakdown Voltage | V _{(BR)CBO} | 100 | - | - | V | I _C =100μA, I _E =0 |
| Collector-Emitter Breakdown Voltage | V _{(BR)CEO} | 80 | - | - | V | I _C =10mA, I _B =0 |
| Emitter-Base Breakdown Voltage | V _{(BR)EBO} | 5 | - | - | V | I _E =10μA, I _C =0 |
| Collector Cut-off Current | I _{CB0} | - | - | 100 | nA | V _{CB} =30V, I _E =0 |
| DC Current Gain | h _{FE} | 25 | - | - | | V _{CE} =2V, I _C =5mA |
| | | 100 | - | 250 | | V _{CE} =2V, I _C =150mA |
| | | 25 | - | - | | V _{CE} =2V, I _C =500mA |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | - | - | 0.5 | V | I _C =500mA, I _B =50mA |
| Base-Emitter Voltage | V _{BE(on)} | - | - | 1 | V | V _{CE} =2V, I _C =500mA |
| Transition Frequency | f _T | 100 | - | - | MHz | V _{CE} =10V, I _C =50mA, f=100MHz |

CHARACTERISTIC CURVES



PACKAGE OUTLINE DIMENSIONS

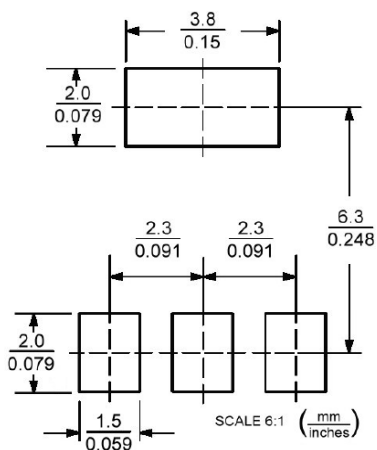
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| REF. | Millimeter | |
|------|------------|------|
| | Min. | Max. |
| A | 5.90 | 6.70 |
| B | 6.70 | 7.30 |
| C | 3.30 | 3.80 |
| D | 1.40 | 1.90 |
| E | 4.60 REF. | |
| F | 0.60 | 0.85 |
| G | - | 0.18 |
| H | 2.00 REF. | |
| J | 0.20 | 0.40 |
| K | 1.10 REF. | |
| L | 2.30 REF. | |
| M | 2.80 | 3.20 |

MOUNTING PAD LAYOUT

SOT-223



*Dimensions in millimeters