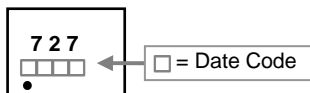


RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

FEATURES

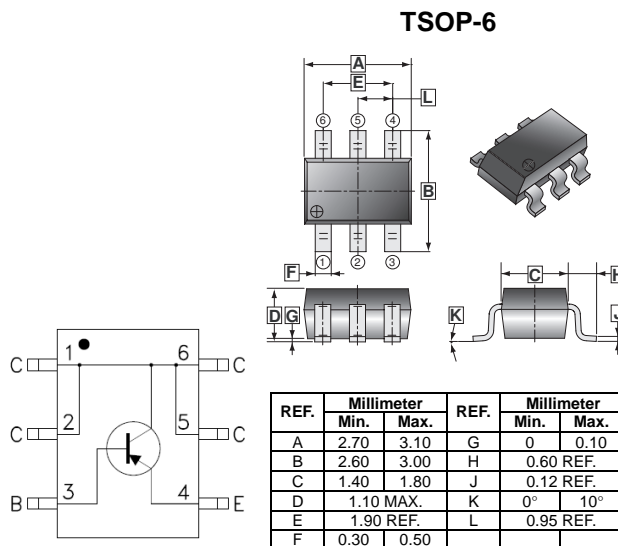
- High current output up to -3A
- Low saturation voltage

MARKING



PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|---------|-----|-------------|
| TSOP-6 | 3K | 7" inch |



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

| Parameter | Symbol | Rating | Unit |
|---|-----------------------------------|----------------|------|
| Collector to Base Voltage | V _{CB0} | -40 | V |
| Collector to Emitter Voltage | V _{CEO} | -30 | V |
| Emitter to Base Voltage | V _{EBO} | -5 | V |
| Collector Current | I _C | -3 | A |
| Total Power Dissipation @ T _C =25°C ³ | P _D | 1.2 | W |
| Thermal Resistance Junction-ambient Max ¹ | R _{θJC} | 105 | °C/W |
| Junction & Storage Temperature | T _J , T _{STG} | 150, -55 ~ 150 | °C |

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

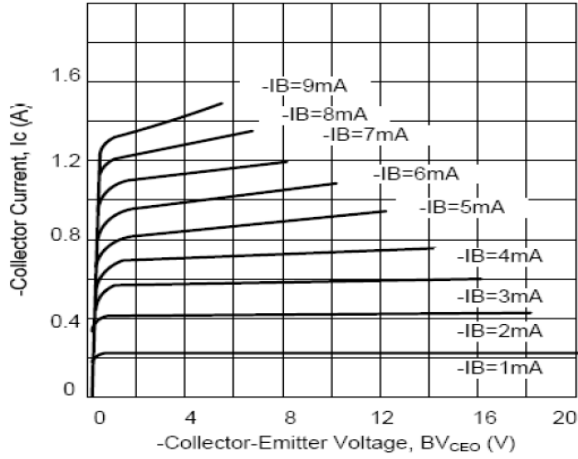
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|---|----------------------|------|-------|-------|------|--|
| Collector-base breakdown voltage | V _{(BR)CBO} | -40 | - | - | V | I _C = -100μA, I _E =0 |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | -30 | - | - | V | I _C = -1mA, I _B =0 |
| Emitter-base breakdown voltage | V _{(BR)EBO} | -5 | - | - | V | I _E = -10μA, I _C =0 |
| Collector cut-off current | I _{CBO} | - | - | -0.1 | μA | V _{CB} = -30V, I _E =0 |
| Emitter cut-off current | I _{EBO} | - | - | -0.1 | μA | V _{EB} = -5V, I _C =0 |
| Collector-emitter saturation voltage ² | V _{CE(sat)} | - | -0.15 | -0.25 | V | I _C = -0.5A, I _B = -5mA |
| | | - | -0.85 | -1 | | I _C = -2A, I _B = -20mA |
| | | - | -0.25 | -0.5 | | I _C = -2A, I _B = -200mA |
| Base-emitter saturation voltage ² | V _{BE(sat)} | - | -0.8 | -1.1 | V | I _C = -0.5A, I _B = -5mA |
| | | - | -1 | -1.5 | | I _C = -2A, I _B = -200mA |
| DC current gain ² | h _{FE} | 30 | - | - | | V _{CE} = -2V, I _C = -20mA |
| | | 160 | - | 320 | | V _{CE} = -2V, I _C = -1A |
| Transition frequency | f _T | - | 80 | - | MHz | V _{CE} = -5V, I _C = -100mA, f=100MHz |
| Collector output capacitance | C _{ob} | - | 55 | - | pF | V _{CB} = -10V, f=1MHz |

NOTE:

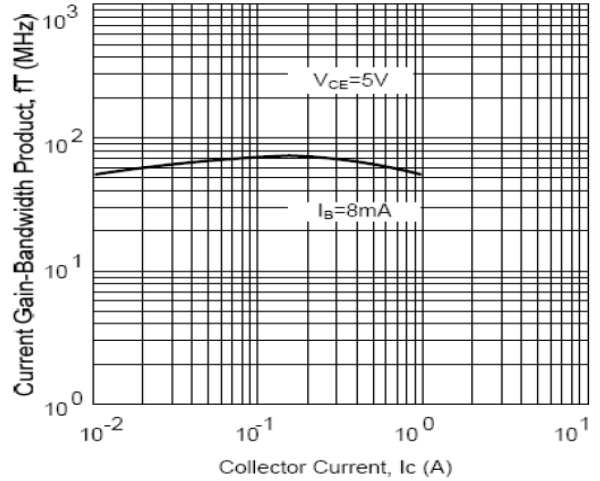
1. surface mounted on a 1 inch² FR-4 board with 2OZ copper. , 167°C/W when mounted on Min. copper pad.
2. The data tested by pulsed , pulse width ≤300us , duty cycle ≤2%
3. The power dissipation is limited by 150 °C junction temperature

CHARACTERISTIC CURVES

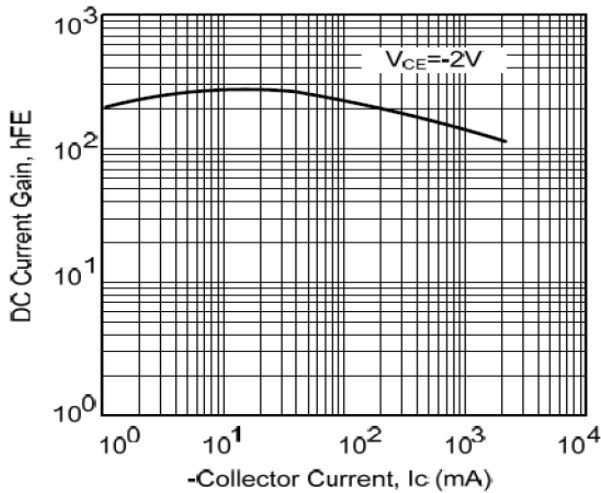
Static Characteristics



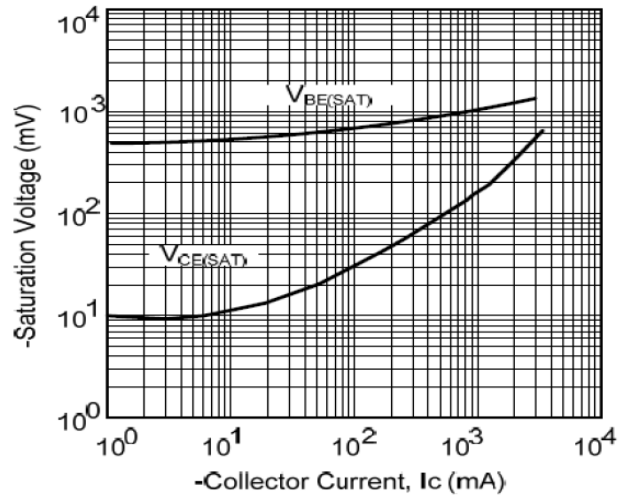
Current Gain-Bandwidth Product



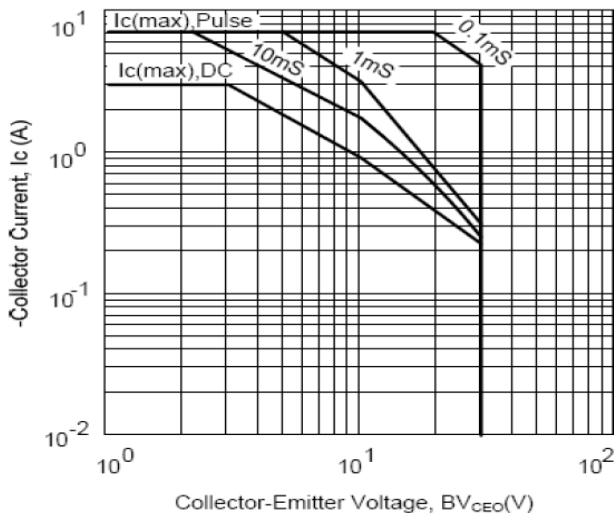
DC Current Gain



Saturation Voltage



Safe Operating Area



Power Derating

