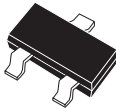


CMPT3019

NPN SILICON TRANSISTOR



SOT-23 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CMPT3019 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for very high current, general purpose amplifier applications.

Marking Code is C3A.

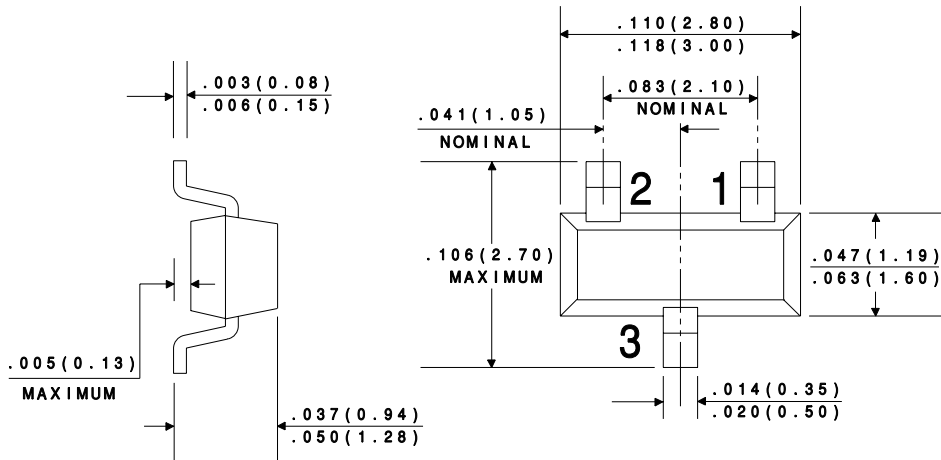
MAXIMUM RATINGS (T_A=25°C)

| | SYMBOL | | UNITS |
|---|-----------------------------------|-------------|-------|
| Collector-Base Voltage | V _{CBO} | 120 | V |
| Collector-Emitter Voltage | V _{CEO} | 80 | V |
| Emitter-Base Voltage | V _{EBO} | 7.0 | V |
| Collector Current | I _C | 500 | A |
| Collector Current (Peak) | I _{CM} | 1.0 | A |
| Power Dissipation | P _D | 350 | mW |
| Operating and Storage Junction Temperature | T _J , T _{stg} | -65 to +150 | °C |
| Thermal Resistance | θ _{JA} | 357 | °C/W |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------------------|--|-----|-----|-------|
| I _{CBO} | V _{CB} =90V | | 10 | nA |
| I _{EBO} | V _{EB} =5.0V | | 10 | nA |
| BV _{CBO} | I _C =100μA | 120 | | V |
| BV _{CEO} | I _C =30mA | 80 | | V |
| BV _{EBO} | I _E =100μA | 7.0 | | V |
| V _{CE(SAT)} | I _C =150mA, I _B =15mA | | 0.2 | V |
| V _{CE(SAT)} | I _C =500mA, I _B =50mA | | 0.5 | V |
| V _{BE(SAT)} | I _C =150mA, I _B =15mA | | 1.1 | V |
| h _{FE} | V _{CE} =10V, I _C =0.1mA | 50 | | |
| h _{FE} | V _{CE} =10V, I _C =10mA | 90 | | |
| h _{FE} | V _{CE} =10V, I _C =150mA | 100 | 300 | |
| h _{FE} | V _{CE} =10V, I _C =500mA | 50 | | |
| f _T | V _{CE} =10V, I _C =50mA, f=1.0MHz | 100 | | MHz |
| C _{ob} | V _{CB} =10V, I _E =0, f=1.0MHz | | 12 | pF |
| C _{ib} | V _{EB} =0.5V, I _C =0, f=1.0MHz | | 60 | pF |
| NF | V _{CE} =10V, I _C =100mA, R _S =1kΩ, f=1.0kHz | | 4.0 | dB |

All dimensions in inches (mm).



LEAD CODE:

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR