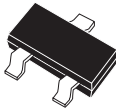


## CMPT3019

### 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.**

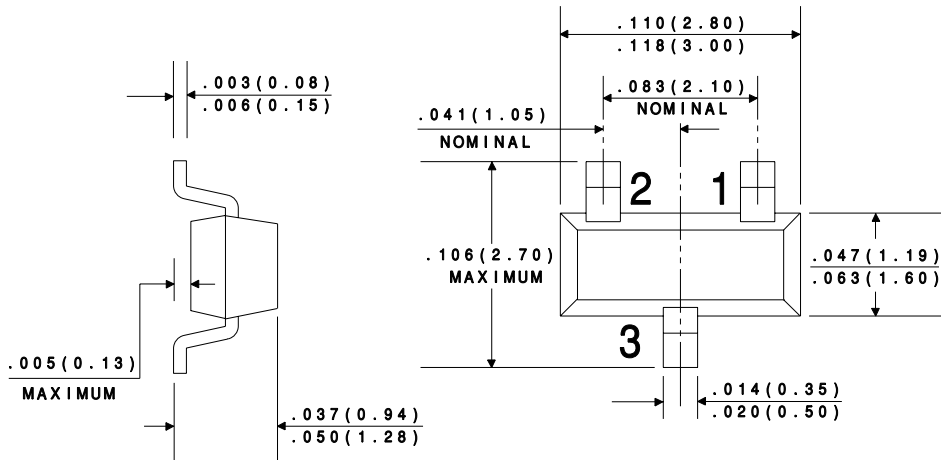
### MAXIMUM RATINGS (T<sub>A</sub>=25°C)

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

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> =90V		10	nA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V		10	nA
BV <sub>CBO</sub>	I <sub>C</sub> =100μA	120		V
BV <sub>CEO</sub>	I <sub>C</sub> =30mA	80		V
BV <sub>EBO</sub>	I <sub>E</sub> =100μA	7.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		0.2	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA		0.5	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		1.1	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1mA	50		
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	90		
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =150mA	100	300	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA	50		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=1.0MHz	100		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz		12	pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, I <sub>C</sub> =0, f=1.0MHz		60	pF
NF	V <sub>CE</sub> =10V, I <sub>C</sub> =100mA, R <sub>S</sub> =1kΩ, f=1.0kHz		4.0	dB

All dimensions in inches (mm).



LEAD CODE:

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