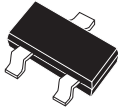


## CMPTH10

NPN SILICON RF TRANSISTOR



SOT-23 CASE

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPTH10 type is an NPN silicon RF transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for low noise UHF/VHF amplifier and high output oscillator applications.

**Marking code is C3E.**

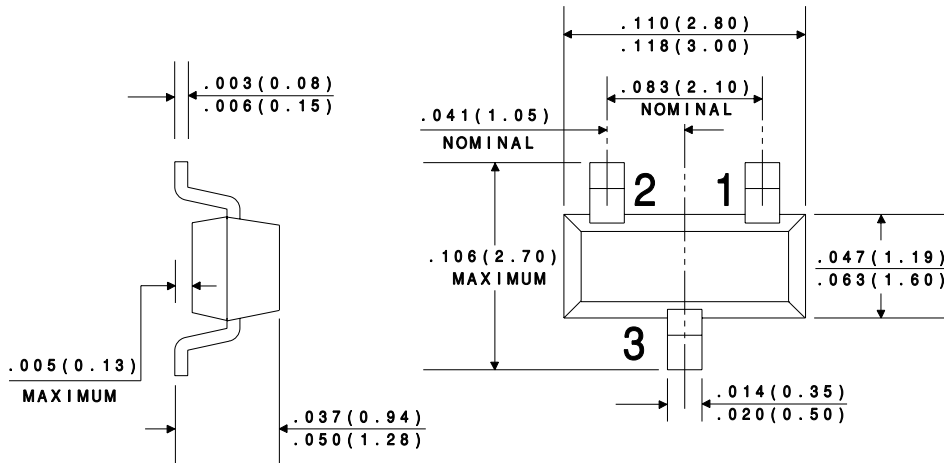
### MAXIMUM RATINGS (T<sub>A</sub>=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V <sub>CB0</sub>	30	V
Collector-Emitter Voltage	V <sub>CEO</sub>	25	V
Emitter-Base Voltage	V <sub>EBO</sub>	3.0	V
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> =25V		100	nA
I <sub>EBO</sub>	V <sub>EB</sub> =2.0V		100	nA
BV <sub>CB0</sub>	I <sub>C</sub> =100μA	30		V
BV <sub>CEO</sub>	I <sub>C</sub> =1.0mA	25		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	3.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =4.0mA, I <sub>B</sub> =0.4mA		0.50	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =10V, I <sub>B</sub> =4.0mA		0.95	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =4.0mA	60		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =4.0mA, f=100MHz	650		MHz
C <sub>cb</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz		0.70	pF
C <sub>rb</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz		0.65	pF
rb'C <sub>c</sub>	V <sub>CB</sub> =10V, I <sub>C</sub> =4.0mA, f=31.8MHz		9.0	ps

All dimensions in inches (mm).



LEAD CODE:

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