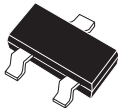


CMPTH10

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.

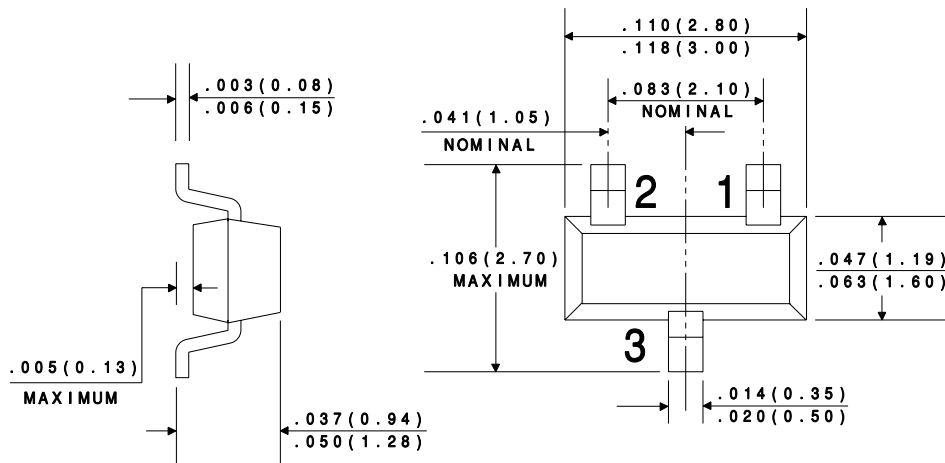
MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Power Dissipation	P_D	350	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	357	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{\text{CB}}=25\text{V}$		100	nA
I_{EBO}	$V_{\text{EB}}=2.0\text{V}$		100	nA
BV_{CBO}	$I_{\text{C}}=100\mu\text{A}$	30		V
BV_{CEO}	$I_{\text{C}}=1.0\text{mA}$	25		V
BV_{EBO}	$I_{\text{E}}=10\mu\text{A}$	3.0		V
$V_{\text{CE}}(\text{SAT})$	$I_{\text{C}}=4.0\text{mA}, I_{\text{B}}=0.4\text{mA}$		0.50	V
$V_{\text{BE}}(\text{ON})$	$V_{\text{CE}}=10\text{V}, I_{\text{B}}=4.0\text{mA}$		0.95	V
h_{FE}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=4.0\text{mA}$	60		
f_{T}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=4.0\text{mA}, f=100\text{MHz}$	650		MHz
C_{cb}	$V_{\text{CB}}=10\text{V}, I_{\text{E}}=0, f=1.0\text{MHz}$		0.70	pF
C_{rb}	$V_{\text{CB}}=10\text{V}, I_{\text{E}}=0, f=1.0\text{MHz}$		0.65	pF
$r_b'C_c$	$V_{\text{CB}}=10\text{V}, I_{\text{C}}=4.0\text{mA}, f=31.8\text{MHz}$		9.0	ps

All dimensions in inches (mm).



LEAD CODE:

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