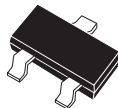


CMPT930

NPN SILICON TRANSISTOR



SOT-23 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CMPT930 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for small signal general purpose amplifier applications.

Marking Code is C1X.

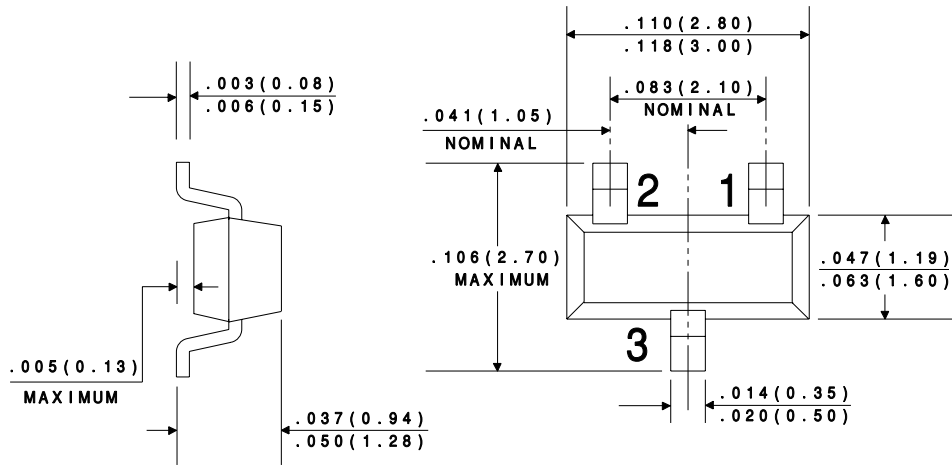
MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	45	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_{C}	30	mA
Power Dissipation	P_{D}	350	mW
Operating and Storage			
Junction Temperature	$T_{\text{J}}, T_{\text{stg}}$	-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}	$V_{\text{CB}}=45\text{V}$		10	nA
I_{CEO}	$V_{\text{CE}}=5.0\text{V}$		10	nA
I_{CES}	$V_{\text{CE}}=45\text{V}$		10	nA
I_{EBO}	$V_{\text{EB}}=5.0\text{V}$		10	nA
BV_{CBO}	$I_{\text{C}}=10\mu\text{A}$	45		V
BV_{CEO}	$I_{\text{C}}=10\text{mA}$	45		V
BV_{EBO}	$I_{\text{E}}=10\mu\text{A}$	5.0		V
$V_{\text{CE}}(\text{SAT})$	$I_{\text{C}}=10\text{mA}, I_{\text{B}}=0.5\text{mA}$		1.0	V
$V_{\text{BE}}(\text{SAT})$	$I_{\text{C}}=10\text{mA}, I_{\text{B}}=0.5\text{mA}$	0.6	1.0	V
h_{FE}	$V_{\text{CE}}=5.0\text{V}, I_{\text{C}}=10\mu\text{A}$	100	300	
h_{FE}	$V_{\text{CE}}=5.0\text{V}, I_{\text{C}}=500\mu\text{A}$	150		
h_{FE}	$V_{\text{CE}}=5.0\text{V}, I_{\text{C}}=10\text{mA}$		600	
f_{T}	$V_{\text{CE}}=5.0\text{V}, I_{\text{C}}=500\text{mA}, f=30\text{MHz}$	30		MHz
C_{ob}	$V_{\text{CB}}=5.0\text{V}, I_{\text{E}}=0, f=1.0\text{MHz}$		8.0	pF
NF	$V_{\text{CE}}=5.0\text{V}, I_{\text{C}}=10\text{mA}, R_{\text{S}}=10\text{k}\Omega, f=10\text{Hz to } 15.7\text{kHz}$		3.0	dB

All dimensions in inches (mm).



LEAD CODE:

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