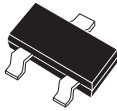


**CMPT5179**

**NPN SILICON RF TRANSISTOR**



**SOT-23 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPT5179 type is an NPN silicon RF transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for low noise, high frequency amplifier and high output oscillator applications.

**Marking code is C7H.**

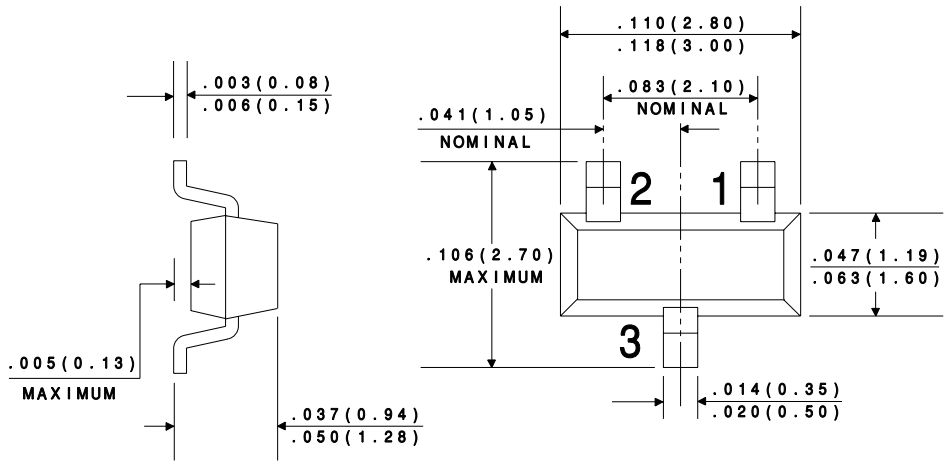
**MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ )

	<b>SYMBOL</b>		<b>UNITS</b>
Collector-Base Voltage	$V_{CBO}$	20	V
Collector-Emitter Voltage	$V_{CEO}$	12	V
Emitter-Base Voltage	$V_{EBO}$	2.5	V
Collector Current	$I_C$	50	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^{\circ}\text{C}/\text{W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_{CBO}$	$V_{CB}=15\text{V}$			20	nA
$BV_{CBO}$	$I_C=10\mu\text{A}$	20			V
$BV_{CEO}$	$I_C=3.0\text{mA}$	12			V
$BV_{EBO}$	$I_E=10\mu\text{A}$	2.5			V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			0.4	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			1.0	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=3.0\text{mA}$	25			
$f_T$	$V_{CE}=6.0\text{V}, I_C=5.0\text{mA}, f=100\text{MHz}$	900	1450		MHz
$C_{cb}$	$V_{CB}=10\text{V}, I_E=0, f=0.1$ to $1.0\text{MHz}$			1.0	pF
$h_{fe}$	$V_{CE}=6.0\text{V}, I_C=2.0, f=1.0\text{kHz}$	25			
$G_{pe}$	$V_{CE}=6.0\text{V}, I_C=5.0\text{mA}, f=200\text{MHz}$	15			dB
NF	$V_{CE}=6.0\text{V}, I_C=1.5\text{mA}, R_S=50\Omega, f=200\text{MHz}$			4.5	dB

All dimensions in inches (mm).



LEAD CODE:

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