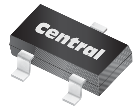
CMPT5179

SURFACE MOUNT
NPN SILICON RF TRANSISTOR



SOT-23 CASE

Central Semiconductor Corp.

www.centralsemi.com

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: C7H

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	20	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	2.5	V
Continuous Collector Current	I_C	50	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

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

R6 (1-February 2010)

CMPT5179

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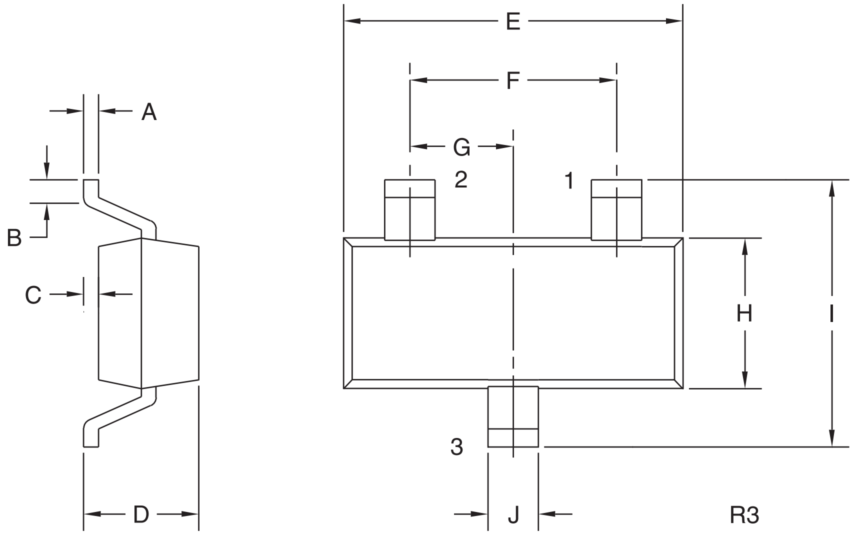
SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) Base
2) Emitter
3) Collector

MARKING CODE: C7H

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R6 (1-February 2010)