

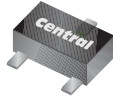
CMUT5179

**SURFACE MOUNT
NPN SILICON
RF TRANSISTOR**



www.centrasemi.com

ULTRAmTMini



SOT-523 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUT5179 type is an NPN silicon RF transistor manufactured by the epitaxial planar process, epoxy molded in an ULTRAmTMini surface mount package, designed for low noise, high frequency amplifier and high output oscillator applications.

MARKING CODE: HC7

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage	V _{CB0}	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	250	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	θ _{JA}	500	°C/W

SYMBOL

UNITS

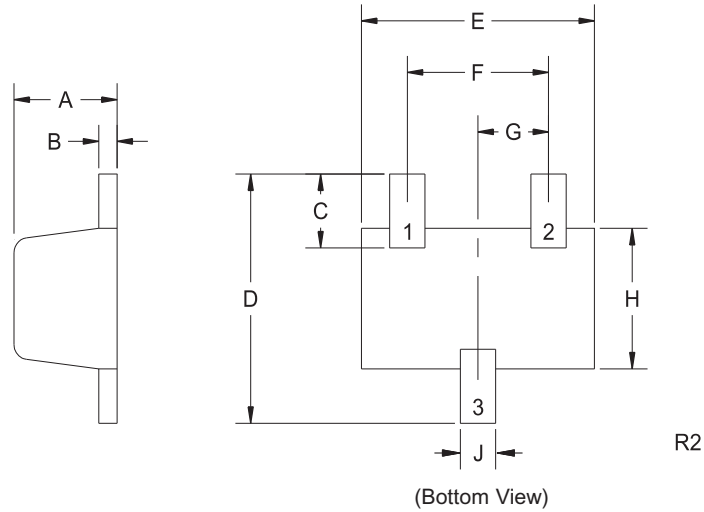
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CB0}	V _{CB} =15V			20	nA
BV _{CB0}	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=0.1 to 1.0MHz			1.0	pF
h _{fe}	V _{CE} =6.0V, I _C =2.0, 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

CMUT5179
 SURFACE MOUNT
 NPN SILICON
 RF TRANSISTOR



SOT-523 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Emitter
- 3) Collector

MARKING CODE: HC7

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)

R2 (9-February 2010)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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