

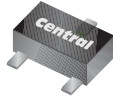
CMUT5179

**SURFACE MOUNT
NPN SILICON
RF TRANSISTOR**



www.centrasemi.com

ULTRAmulti™



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 ULTRAmulti™ 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

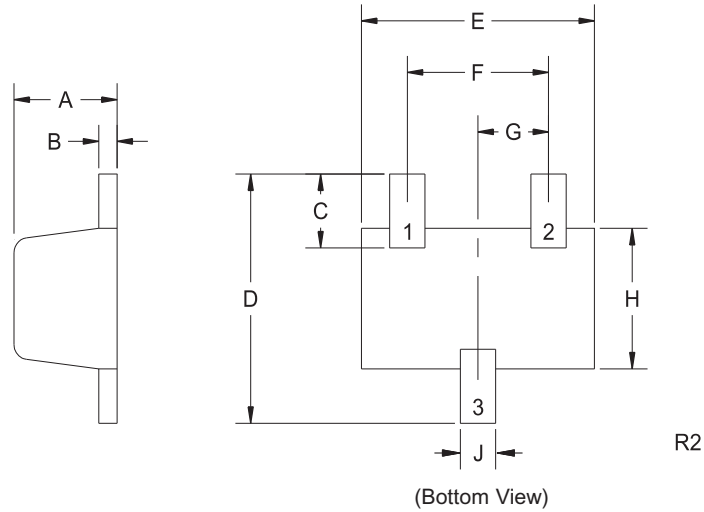
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

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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