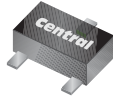


CMUT5179

SURFACE MOUNT
NPN SILICON
RF TRANSISTOR

ULTRAmiTM



SOT-523 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUT5179 type is an NPN silicon RF transistor manufactured by the epitaxial planar process, epoxy molded in an ULTRAmiTM 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
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{CBO} 20
V_{CEO} 15
V_{EBO} 2.5
I_C 50
P_D 250
T_J, T_{stg} -65 to +150
Θ_{JA} 500

UNITS

V
V
V
mA
mW
°C
°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=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

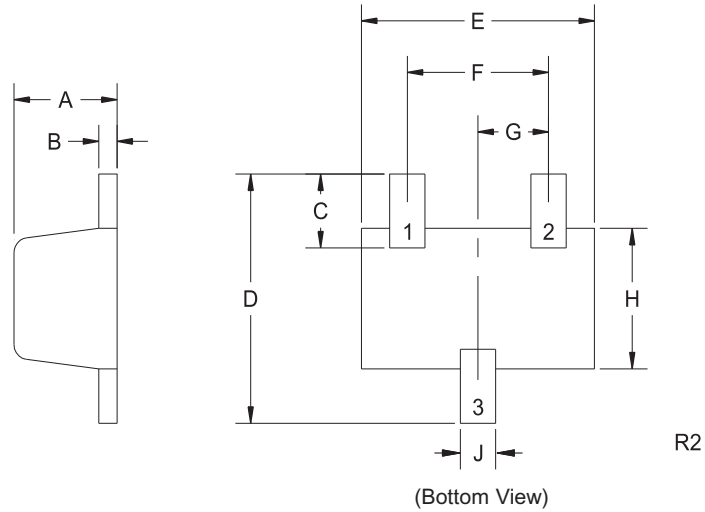
R2 (9-February 2010)

CMUT5179

SURFACE MOUNT
NPN SILICON
RF TRANSISTOR



SOT-523 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE: HC7

DIMENSIONS				
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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms