CMPT5179

SURFACE MOUNT NPN SILICON RF TRANSISTOR



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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



SOT-23 CASE

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	$I_{\mathbb{C}}$	50	mA
Power Dissipation	P_{D}	350	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	$\Theta_{\sf JA}$	357	°C/W

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

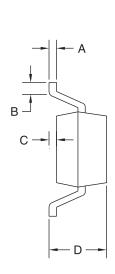
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SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} =15V			20	nA
BV _{CBO}	I _C =10μA	20			V
BVCEO	I _C =3.0mA	15			V
BVEBO	I _E =10μA	2.5			V
V _{CE} (SAT)	I _C =10mA, I _B =1.0mA			0.4	V
V _{BE} (SAT)	I _C =10mA, I _B =1.0mA			1.0	V
hFE	V_{CE} =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_{CF} =6.0V, I_{C} =1.5mA, R_{S} =50 Ω , f=200MHz		4.5		dB

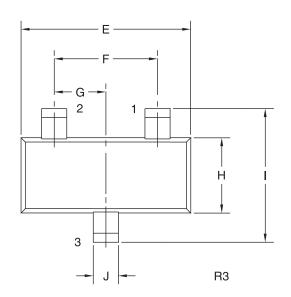
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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

- 1) Base 2) Emitter 3) Collector

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DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.003	0.007	0.08	0.18			
В	0.006	-	0.15	-			
С	-	0.005	-	0.13			
D	0.035	0.043	0.89	1.09			
Е	0.110	0.120	2.80	3.05			
F	0.075		1.90				
G	0.037		0.95				
Н	0.047	0.055	1.19	1.40			
ĺ	0.083	0.098	2.10	2.49			
J	0.014	0.020	0.35	0.50			

SOT-23 (REV: R3)

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 guick 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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