

SURFACE MOUNT NPN SILICON RF TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT918 type is an NPN silicon RF transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high frequency (VHF/UHF) amplifier and oscillator applications.

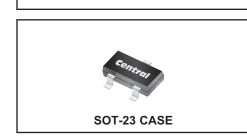
MARKING CODE: C3B

MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	30	V
Collector-Emitter Voltage	VCEO	15	V
Emitter-Base Voltage	V _{EBO}	3.0	V
Continuous Collector Current	۱ _C	50	mA
Power Dissipation	PD	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	MAX	UNITS
ICBO	V _{CB} =15V		10	nA
BVCBO	Ι _C =1.0μΑ	30		V
BVCEO	I _C =3.0mA	15		V
BVEBO	Ι _Ε =10μΑ	3.0		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	20		
fT	V _{CE} =10V, I _C =4.0mA, f=100MHz	600		MHz
Cob	V _{CB} =0V, I _E =0, f=1.0MHz		3.0	pF
Cob	V _{CB} =10V, I _E =0, f=1.0MHz		1.7	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=1.0MHz		2.0	pF
Pout	V _{CB} =15V, I _C =8.0mA, f=500MHz	30		mW
G _{pe}	V _{CB} =12V, I _C =6.0mA, f=200MHz	11		dB
N _F	V_{CE} =6.0V, I _C =1.0mA, R _S =50 Ω , f=60MHz		6.0	dB

R5 (27-January 2010)

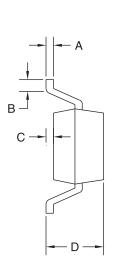


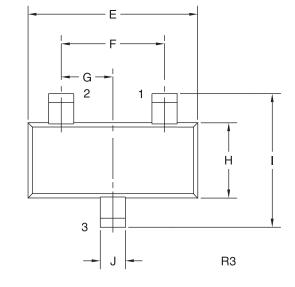




SURFACE MOUNT NPN SILICON RF TRANSISTOR

SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:
1) Base
2) Emittor

2) Emitter
3) Collector

MARKING CODE: C3B

DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
А	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			
E	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			
	0.083	0.098	2.10	2.49			
J	0.014	0.020	0.35	0.50			

SOT-23 (REV: R3)

R5 (27-January 2010)

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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

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

ss your design challenges.

· Custom product packing

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits

Custom bar coding for shipments

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).
- 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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