CMPT2369

SURFACE MOUNT NPN SILICON TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT2369 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for small signal general purpose and high speed switching applications.

MARKING CODE: C1J



MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V _{CES}	40	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	4.5	V
Continuous Collector Current	I _C	500	mA
Power Dissipation	P_{D}	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)

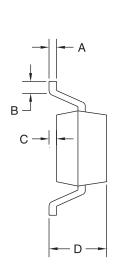
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =20V		0.4	μΑ
I _{CBO}	V _{CB} =20V, T _A =125°C		30	μΑ
BV_{CBO}	I _C =10μA	40		V
BV _{CES}	I _C =10μA	40		V
BV _{CEO}	I _C =10mA	15		V
BV _{EBO}	I _E =10μA	4.5		V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.25	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA	0.7	0.85	V
h _{FE} ` ′	V _{CE} =1.0V, I _C =10mA	40	120	
h _{FE}	V _{CE} =2.0V, I _C =100mA	20		
C _{ob}	V_{CB} =5.0V, I_{E} =0, f=1.0MHz		4.0	pF
f _T	V_{CE} =10V, I_{C} =10mA, f=100MHz	500		MHz
t _s	V_{CC} =3.0V, I_{C} = I_{B1} = I_{B2} =10mA		13	ns
t _{on}	V_{CC} =3.0V, I_{C} =10mA, I_{B1} =3.0mA		12	ns
t _{off}	V_{CC} =3.0V, I_{C} =10mA, I_{B1} =3.0mA, I_{B2} =1.5mA		18	ns

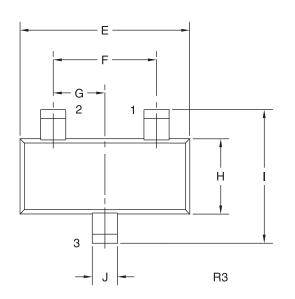
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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

- 1) Base 2) Emitter 3) Collector

MARKING CODE: C1J

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			
I	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 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

CONTACT US

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