CMPT5401

SURFACE MOUNT PNP SILICON TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT5401 type is a PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high voltage amplifier applications.

MARKING CODE: C2L



MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	IC	600	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)						
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS		
ICBO	V _{CB} =120V		50	nA		
I _{CBO}	V _{CB} =120V, T _A =100°C		50	μΑ		
I _{EBO}	V _{EB} =3.0V		50	nA		
BV _{CBO}	I _C =100μA	160		V		
BV _{CEO}	I _C =1.0mA	150		V		
BV _{EBO}	I _E =10μA	5.0		V		
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.2	V		
V _{CE} (SAT)	I _C =50mA, I _B =5.0mA		0.5	V		
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA		1.0	V		
V _{BE(SAT)}	I _C =50mA, I _B =5.0mA		1.0	V		
hFE	V_{CE} =5.0V, I_{C} =1.0mA	50				
h _{FE}	V _{CE} =5.0V, I _C =10mA	60	240			
h _{FE}	V_{CE} =5.0V, I_{C} =50mA	50				
f_{T}	V_{CE} =10V, I_{C} =10mA, f=100MHz	100	300	MHz		
C _{ob}	V_{CB} =10V, I_E =0, f=1.0MHz		6.0	pF		
h _{fe}	V_{CE} =10V, I_{C} =1.0mA, f=1.0kHz	40	200			
NF	V_{CE} =5.0V, I_{C} =250 μ A, R_{S} =1.0 $k\Omega$,					
	f=10Hz to 15.7kHz		8.0	dB		

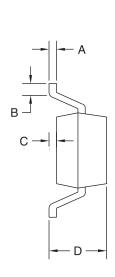
R6 (1-February 2010)

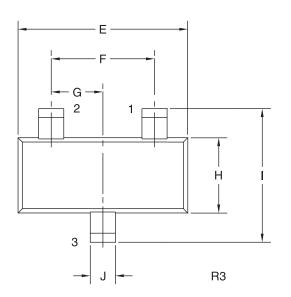
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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

- 1) Base 2) Emitter
- 3) Collector

MARKING CODE: C2L

DIM	ENIOLONI							
	DIMENSIONS							
INCHES		MILLIMETERS						
MIN	MAX	MIN	MAX					
0.003	0.007	0.08	0.18					
0.006	-	0.15	-					
-	0.005	-	0.13					
0.035	0.043	0.89	1.09					
0.110	0.120	2.80	3.05					
0.075		1.90						
0.037		0.95						
0.047	0.055	1.19	1.40					
0.083	0.098	2.10	2.49					
0.014	0.020	0.35	0.50					
	MIN 0.003 0.006 - 0.035 0.110 0.0 0.047 0.083	MIN MAX 0.003 0.007 0.006 0.005 0.035 0.043 0.110 0.120 0.075 0.037 0.047 0.055 0.083 0.098	MIN MAX MIN 0.003 0.007 0.08 0.006 - 0.15 - 0.005 - 0.035 0.043 0.89 0.110 0.120 2.80 0.075 1. 0.037 0. 0.047 0.055 1.19 0.083 0.098 2.10					

SOT-23 (REV: R3)

R6 (1-February 2010)

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Central's operations team provides the highest level of support to insure product is delivered on-time.

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- · Inventory bonding
- · Consolidated shipping options

- Custom bar coding for shipments
- · Custom product packing

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- 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).

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