2N4123 2N4124 NPN
2N4125 2N4126 PNP

COMPLEMENTARY SILICON TRANSISTORS

TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N4123 series devices are complementary silicon small signal transistors manufactured by the epitaxial planar process designed for general purpose amplifier and switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL	2N4123	2N4124	2N4125	2N4126	UNITS
Collector-Base Voltage	V_{CBO}	40	30	30	25	V
Collector-Emitter Voltage	V_{CEO}	30	25	30	25	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	4.0	4.0	V
Continuous Collector Current	I_C		200			mA
Power Dissipation	P_D		625			mW
Power Dissipation (T_C=25°C)	P_D		1.5			W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150			°C
Thermal Resistance	Θ_{JA}		200			°C/W
Thermal Resistance	Θ_{JC}		83.3			°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C)

		2N4123		2N4124		2N4125		2N4126		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	UNITS
I_{CBO}	V_{CB}=20V	-	50	-	50	-	50	-	50	nA
I_{EBO}	V_{EB}=3.0V	-	50	-	50	-	50	-	50	nA
BV_{CBO}	I_C=10μA	40	-	30	-	30	-	25	-	V
BV_{CEO}	I_C=1.0mA	30	-	25	-	30	-	25	-	V
BV_{EBO}	I_E=10μA	5.0	-	5.0	-	4.0	-	4.0	-	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA	-	0.3	-	0.3	-	0.4	-	0.4	V
$V_{BE(SAT)}$	I_C=50mA, I_B=5.0mA	-	0.95	-	0.95	-	0.95	-	0.95	V
h_{FE}	V_{CE}=1.0V, I_C=2.0mA	50	150	120	360	50	150	120	360	
h_{FE}	V_{CE}=1.0V, I_C=50mA	25	-	60	-	25	-	60	-	
h_{fe}	V_{CE}=10V, I_C=2.0mA, f=1.0kHz	50	200	120	480	50	200	120	480	
f_T	V_{CE}=20V, I_C=10mA, f=100MHz	250	-	300	-	200	-	250	-	MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=100kHz	-	4.0	-	4.0	-	4.5	-	4.5	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=100kHz	-	8.0	-	8.0	-	10	-	10	pF
NF	V_{CE}=5.0V, I_C=100μA, R_S=1.0kΩ, f=10Hz to 15.7kHz	-	6.0	-	5.0	-	5.0	-	4.0	dB

R1 (12-January 2016)

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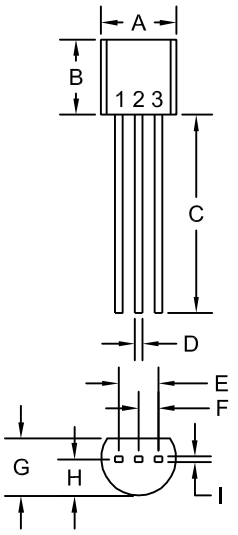
COMPLEMENTARY
SILICON TRANSISTORS

TO-92 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE:
1) Emitter
2) Base
3) Collector

MARKING:
FULL PART NUMBER

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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
- 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.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

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www.centralsemi.com/wwdistributors

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