2N3250 2N3250A
2N3251 2N3251A

SILICON
PNP TRANSISTORS

TO-18 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3250, 2N3251 series devices are silicon PNP transistors designed for small signal, general purpose switching applications.

MARKING: FULL PART NUMBER

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

	SYMBOL	2N3250 2N3251	2N3250A 2N3251A	UNITS
Collector-Base Voltage	V_{CBO}	50	60	V
Collector-Emitter Voltage	V_{CEO}	40	60	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Continuous Collector Current	I_C	200		mA
Power Dissipation	P_D	360		mW
Power Dissipation (T_C=25°C)	P_D	1.2		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200		°C
Thermal Resistance	Θ_{JC}	146		°C/W
Thermal Resistance	Θ_{JA}	486		°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEV}	V_{CE}=40V, V_{EB}=3.0V		20	nA
BV_{CBO}	I_C=10μA (2N3250, 2N3251)	50		V
BV_{CBO}	I_C=10μA (2N3250A, 2N3251A)	60		V
BV_{CEO}	I_C=10mA (2N3250, 2N3251)	40		V
BV_{CEO}	I_C=10mA (2N3250A, 2N3251A)	60		V
BV_{EBO}	I_E=10μA	5.0		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.25	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		0.50	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	0.60	0.90	V
$V_{BE(SAT)}$	I_C=50mA, I_B=5.0mA		1.20	V

		2N3250 2N3250A		2N3251 2N3251A	
		MIN	MAX	MIN	MAX
h_{FE}	V_{CE}=1.0V, I_C=0.1mA	40	-	80	-
h_{FE}	V_{CE}=1.0V, I_C=1.0mA	45	-	90	-
h_{FE}	V_{CE}=1.0V, I_C=10mA	50	150	100	300
h_{FE}	V_{CE}=1.0V, I_C=50mA	15	-	30	-

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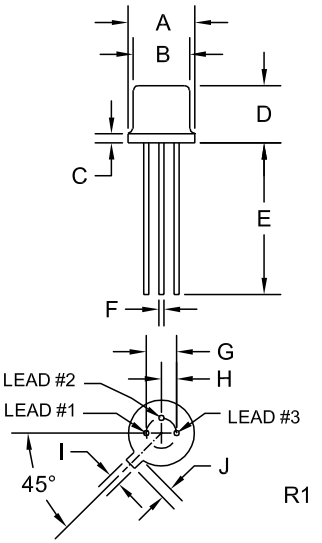
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C unless otherwise noted)

		2N3250 / 2N3250A		2N3251 / 2N3251A		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
f_T	V_{CE}=20V, I_C=10mA, f=100MHz	250	-	300	-	MHz
C_{ob}	V_{CB}=10V, I_E=0, f=100kHz	-	6.0	-	6.0	pF
C_{ib}	V_{EB}=1.0V, I_C=0, f=100kHz	-	10[1]	-	10[1]	pF
NF	V_{CE}=5.0V, I_C=100μA, R_s=1.0kΩ, f=100Hz	-	6.0	-	6.0	dB
t_{on}	V_{CC}=3.0V, V_{BE}=0.5V, I_C=10mA, I_{B1}=1.0mA	-	70	-	70	ns
t_{off}	V_{CC}=3.0V, I_C=10mA, I_{B1}=I_{B2}=1.0mA	-	225	-	250	ns

Note 1: Typical limit

TO-18 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

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

MARKING:
FULL PART NUMBER

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

Worldwide Distributors:
www.centralsemi.com/wwdistributors