2N3117

NPN SILICON TRANSISTOR

TO-18 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:
The CENTRAL SEMICONDUCTOR 2N3117 type is an NPN silicon transistor designed for general purpose amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continuous Collector Current	I_C	50	mA
Power Dissipation	P_D	360	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C

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

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=45V		10	nA
I_{CBO}	V_{CB}=45V, T_A=150°C		10	µA
I_{EBO}	V_{EB}=5.0V		10	nA
BV_{CBO}	I_C=10µA	60		V
BV_{CEO}	I_C=10mA	60		V
BV_{EBO}	I_E=10µA	6.0		V
$V_{CE(SAT)}$	I_C=1.0mA, I_B=100µA		0.35	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=100µA		0.7	V
h_{FE}	V_{CE}=5.0V, I_C=1.0µA	100		
h_{FE}	V_{CE}=5.0V, I_C=10µA	250	500	
h_{FE}	V_{CE}=5.0V, I_C=10µA, T_A=-55°C	50		
h_{FE}	V_{CE}=5.0V, I_C=100µA	300		
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	400		
h_{fe}	V_{CE}=5.0V, I_C=0.5mA, f=30MHz	2.0		
C_{ob}	V_{CB}=5.0V, I_E=0		4.5	pF
C_{ib}	V_{EB}=0.5V, I_C=0		6.0	pF
NF	V_{CE}=5.0V, I_C=5.0µA, f=10kHz BW=1.0kHz, R_S=50kΩ		1.0	dB

R0 (4-September 2012)

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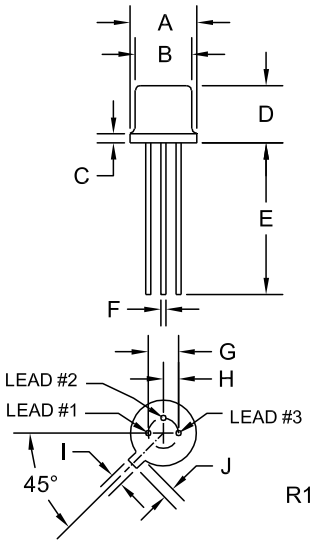
TO-18 CASE - MECHANICAL OUTLINE



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

R0 (4-September 2012)

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

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