

BC307
BC308
BC309

PNP SILICON TRANSISTOR



TO-92 CASE

CentralTM Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BC307, BC308, and BC309 types are PNP Silicon Transistors manufactured by the epitaxial planar process, designed for general purpose amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

Collector-Emitter Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL	BC307	BC308	BC309	UNITS
V _{CES}	50	30	30	V
V _{CEO}	45	25	25	V
V _{EBO}		5.0		V
I _C		100		mA
P _D		500		mW
T _J , T _{stg}		-65 to +150		°C
θ _{JA}		250		°C/W

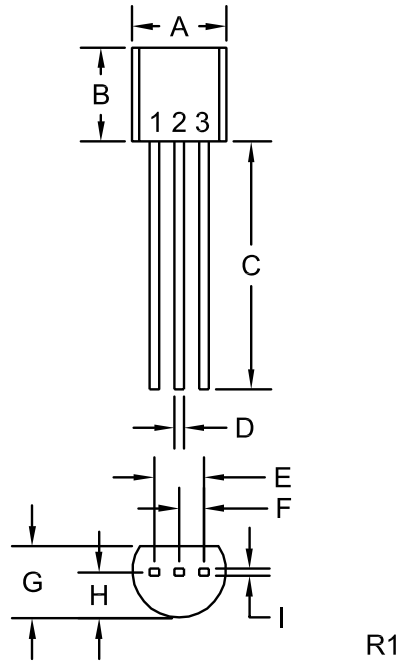
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CES}	V _{CE} =45V (BC307)			15	nA
I _{CES}	V _{CE} =25V (BC308, BC309)			15	nA
BV _{CES}	I _C =10μA (BC307)	50			V
BV _{CES}	I _C =10μA (BC308, BC309)	30			V
BV _{CEO}	I _C =2.0mA (BC307)	45			V
BV _{CEO}	I _C =2.0mA (BC308, BC309)	25			V
BV _{EBO}	I _E =10μA	5			V
V _{CE(SAT)}	I _C =10mA, I _B =0.5mA			0.3	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =2.0mA	0.55		0.7	V
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz			6	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=1.0MHz		12		pF
f _T	V _{CE} =5.0V, I _C =10mA, f=50MHz		130		MHz
NF	V _{CE} =5.0V, I _C =0.2mA (BC307, BC308) R _G =2KΩ, f=1KHz			10	dB
NF	V _{CE} =5.0V, I _C =0.2mA (BC309) R _G =2KΩ, f=30Hz-15KHz			4	dB

	TEST CONDITIONS	BC307A		BC307B		BC307C	
		MIN	MAX	MIN	MAX	MIN	MAX
h _{FE}	V _{CE} =5.0V, I _C =2.0mA	120	220	180	460	380	800

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TO-92 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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) COLLECTOR
2) BASE
3) EMITTER

MARKING: FULL PART NUMBER

R0 (2-October 2008)