

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

BFY90

NPN SILICON RF TRANSISTOR

JEDEC TO-72 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR BFY90 is a Silicon NPN Epitaxial Planar Transistors mounted in a hermetically sealed package designed for VHF/UHF amplifier, oscillator and converter applications.

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

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage (R _{BE} =50Ω)	V _{CER}	30	V
Collector-Emitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V _{EBO}	2.5	V
Collector Current	I _C	50	mA
Power Dissipation	P _D	200	mW
Power Dissipation (T _C =25°C)	P _D	300	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +200	°C
Thermal Resistance	θ _{JA}	875	°C/W
Thermal Resistance	θ _{JC}	583	°C/W

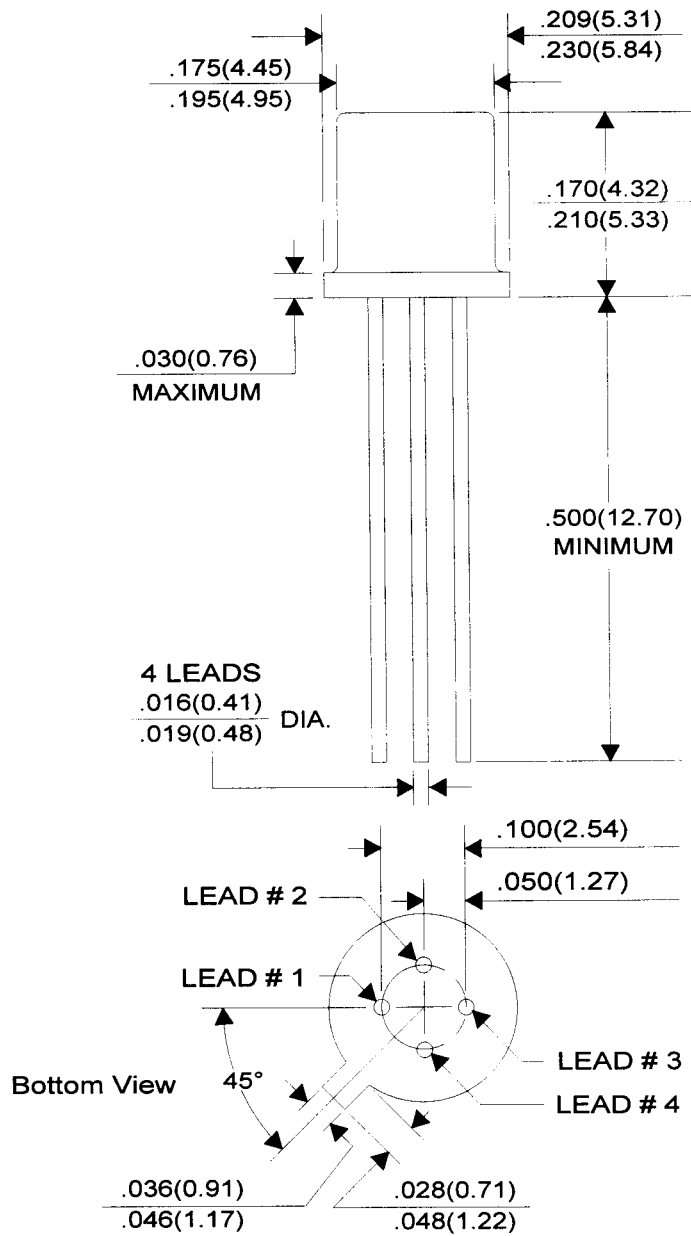
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CB0}	V _{CB} =15V			10	nA
BV _{CB0}	I _C =10μA	30			V
BV _{CER}	I _C =1.0mA, R _{BE} =50Ω	30			V
BV _{CEO}	I _C =1.0mA	15			V
BV _{EBO}	I _E =10μA	2.5			V
h _{FE}	V _{CE} =1.0V, I _C =2.0mA	25		150	
h _{FE}	V _{CE} =1.0V, I _C =25mA	20		125	
f _T	V _{CE} =5.0V, I _C =2.0mA, f=500MHz	1000			MHz
f _T	V _{CE} =5.0V, I _C =25mA, f=500MHz	1300			MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz			1.5	pF
C _{re}	V _{CE} =5.0V, I _C =2.0mA, f=1.0MHz			0.8	pF
G _{pe}	V _{CE} =10V, I _C =14mA, f=200MHz	21			dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=100kHz			4.0	dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=200MHz			3.5	dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=500MHz, R _G =50Ω			5.0	dB
P _o	V _{CE} =10V, I _C =14mA, f=205MHz	10			mW

(See Reverse Side)

R2

JEDEC TO-72 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

- 1) Emitter
- 2) Base
- 3) Collector
- 4) Case

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