Data Sheet

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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)

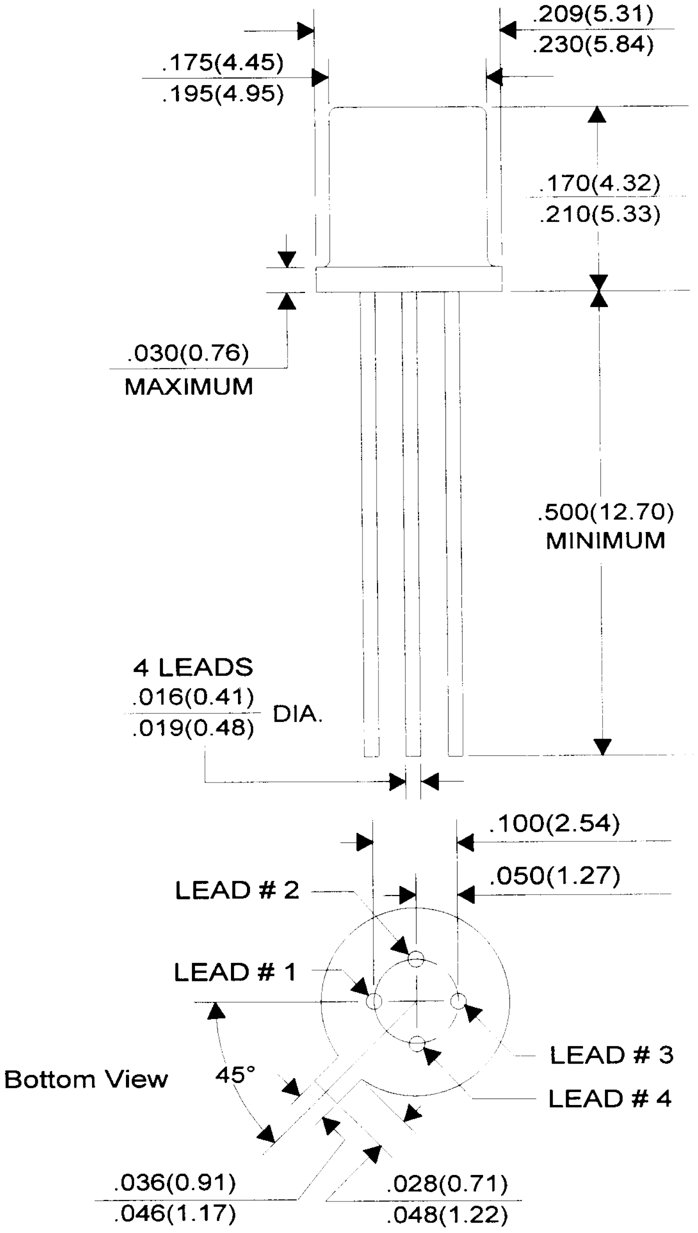
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage (R_{BE}=50Ω)	V_{CER}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	2.5	V
Collector Current	I_C	50	mA
Power Dissipation	P_D	200	mW
Power Dissipation (T_C=25°C)	P_D	300	mW
Operating and Storage Junction 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_{CBO}	V_{CB}=15V			10	nA
BV_{CBO}	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)

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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