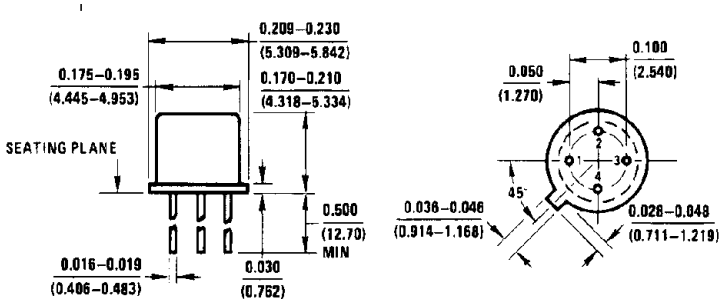
NPN SILICON HIGH FREQUENCY TRANSISTOR

DESCRIPTION:

The **MS175H** is Designed for High Frequency Low Noise Amplifier and Oscillator Applications.

PACKAGE STYLE TO-72



1 = EMITTER 2 = BASE
3 = COLLECTOR 4 = CASE

MAXIMUM RATINGS

I_C	100 mA (PEAK)
V_{CE}	15 V
P_{DISS}	300 mW @ T_C = 25 °C 200 mW @ T_A = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 5.0 mA			15			V
BV_{CBO}	I_C = 10 µA			30			V
I_{CBO}	V_{CB} = 20 V		T_A = 150 °C			0.01 1.0	µA
BV_{EBO}	I_E = 1.0 µA			2.0			V
h_{FE}	V_{CE} = 1.0 V	I_C = 5.0 mA		40		150	---
$V_{CE(SAT)}$	I_C = 20 mA	I_B = 2.0 mA				0.8	V
$V_{BE(SAT)}$	I_C = 20 mA	I_B = 2.0 mA				1.0	V
f_t	V_{CE} = 10 V	I_C = 5.0 mA	f = 100 MHz	1500			MHz
C_{ob}	V_{CB} = 0 V V_{CB} = 10 V		f = 1.0 MHz f = 1.0 MHz			3.0 1.0	pF
C_{ib}	V_{EB} = 0.5 V		f = 1.0 MHz			3.0	pF
NF G_{pe}	V_{CE} = 6.0 V	I_C = 1.5 mA	f = 200 MHz	 15	3.5	4.5	dB
P_o η	V_{CB} = 10 V	I_E = 12 mA	f = 500 MHz	30 25			mW %