

NPN SILICON HIGH FREQUENCY TRANSISTOR

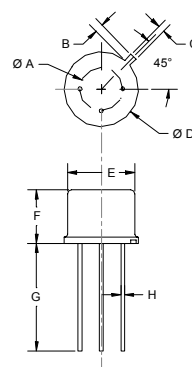
DESCRIPTION:

The **MRF586** is a High Frequency Transistor Designed for High Gain Low Noise CATV, and MATV Amplifier Applications.

MAXIMUM RATINGS

I_C	200 mA
V_{CE}	17 V
P_{DISS}	2.5 W @ $T_C = 50^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+200^\circ\text{C}$
θ_{JC}	70°C/W

PACKAGE STYLE TO-39



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.200 / 5.080	
B	.029 / 0.740	.045 / 1.140
C	.028 / 0.720	.034 / 0.860
D	.335 / 8.510	.370 / 9.370
E	.305 / 7.750	.335 / 8.500
F	.240 / 6.100	.260 / 6.600
G	.500 / 12.700	
H	.016 / 0.407	.020 / 0.508

1 = EMITTER 2 = BASE
3 = COLLECTOR(CASE)

CHARACTERISTICS $T_A = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 5.0 \text{ mA}$			17			V
BV_{CBO}	$I_C = 1.0 \text{ mA}$			34			V
BV_{EBO}	$I_E = 100 \mu\text{A}$			2.5			V
I_{CBO}	$V_{CB} = 10 \text{ V}$					50	μA
h_{FE}	$V_{CE} = 5.0 \text{ V}$	$I_C = 50 \text{ mA}$		50		200	---
f_t	$V_{CE} = 15 \text{ V}$	$I_C = 90 \text{ mA}$	$f = 500 \text{ MHz}$		4500		MHz
C_{OB}	$V_{CB} = 10 \text{ V}$	$f = 1.0 \text{ MHz}$				2.2	pF
NF	$V_{CE} = 15 \text{ V}$	$I_C = 90 \text{ mA}$	$f = 300 \text{ MHz}$		3.0		dB
T_{B3}	$V_{CE} = 15 \text{ V}$	$I_C = 90 \text{ mA}$	$f = 500 \text{ MHz}$		-65		dB
D_{IN}	$V_{CE} = 15 \text{ V}$	$I_C = 90 \text{ mA}$	$f = 500 \text{ MHz}$		-120		dB μV
G_{Umax}	$V_{CE} = 15 \text{ V}$	$I_C = 90 \text{ mA}$	$f = 500 \text{ MHz}$		14.5		dB