NPN SILICON HIGH FREQUENCY TRANSISTOR

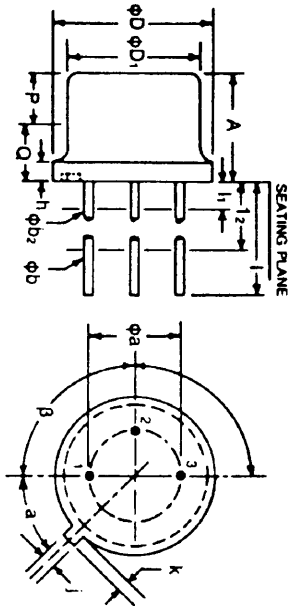
DESCRIPTION:

The **2N4428** is a High Frequency Transistor Designed for Amplifier and Oscillator Applications.

MAXIMUM RATINGS

I_C	425 mA
V_{CE}	30 V
P_{DISS}	3.5 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	50 °C/W

PACKAGE STYLE TO-39



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
Φa	0.190	0.210	4.83	5.33
A	0.240	0.260	6.10	6.60
Φb	0.016	0.021	0.406	0.533
$Φb_2$	0.016	0.019	0.406	0.483
ΦD	0.350	0.370	8.89	9.40
$ΦD_1$	0.315	0.335	8.00	8.51
h	0.009	0.125	0.229	3.18
j	0.028	0.034	0.711	0.864
k	0.029	0.040	0.737	1.02
l	0.500		12.70	
l_1		0.050		1.27
l_2	0.250		6.35	
P	0.100		2.54	
Q				
a β	45° NOMINAL 90° NOMINAL			

1 = EMITTER 2 = BASE
3 = COLLECTOR

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 20 mA			35			V
BV_{CER}	I_C = 20 mA	R_{BE} = 10 Ω		55			V
BV_{EBO}	I_C = 100 µA			3.5			V
I_{CEX}	V_{CE} = 55 V	V_{BE} = -1.5 V				1.0	mA
h_{FE}	V_{CE} = 5.0 V	I_C = 50 mA I_C = 400 mA		20 5.0		200	---
f_t	V_{CE} = 20 V	I_C = 50 mA	f = 200 MHz	700	1000		MHz
C_{OB}	V_{CB} = 28 V		f = 1.0 MHz		1.5	3.5	pF
P_{in} η	V_{CC} = 28 V P_{out} = 750 mW	Rs = 50 Ω	f = 200 MHz	 35		75	mW %