NPN SILICON HIGH FREQUENCY TRANSISTOR

DESCRIPTION:

The **2SC1252** is a High Frequency Transistor, Designed for Wide Band Amplifier Applications up to 500 MHz.

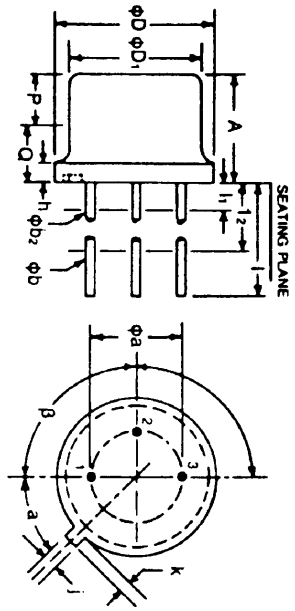
FEATURES INCLUDE:

- High Gain **-17 dB Typ.** @ 200 MHz
- Low **NF - 3.0 dB Typ.** @ 200 MHz
- Hermetic **TO-39** Package

MAXIMUM RATINGS

I_C	400 mA
V_{CB}	45 V
V_{CE}	25 V
P_{DISS}	5 W @ T_C = 25 °C
T_J	-65 to +200 °C
T_{STG}	-65 to +200 °C
θ_{JC}	35 °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
Φb2	0.016	0.019	0.406	0.483
ΦD	0.350	0.370	8.89	9.40
ΦD1	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	
l1		0.050		1.27
l2	0.250		6.35	
P	0.100		2.54	
Q				
a	45° NOMINAL			
β	90° NOMINAL			

1 = Emitter 2 = Base
3 & 4 = Collector (Case)

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 5.0 mA	25			V
BV_{CBO}	I_C = 100 µA	45			V
I_{CBO}	V_{CE} = 30 V			100	nA
I_{EBO}	V_{EB} = 2.0 V			500	nA
h_{FE}	V_{CE} = 10 V I_C = 50 mA	20		200	---
f_t	V_{CE} = 15 V I_C = 15 mA f = 200 MHz	1200			MHz
	V_{CE} = 15 V I_C = 70 mA	1400			
C_{OB}	V_{CB} = 15 V f = 1.0 MHz			3.0	pF
G_{PE}	V_{CE} = 15 V I_C = 50 mA f = 200 MHz	15	17		dB
NF	V_{CE} = 15 V I_C = 30 mA f = 200 MHz		3.0	4.0	dB