

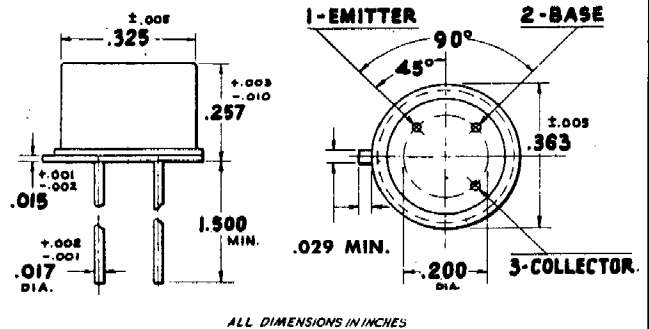
2N332 - 2N336
thru
2N332A - 2N336A

NPN Silicon
Diffused Transistors

APPLICATIONS

These transistors are general purpose silicon diffused transistors intended for amplifier applications in the audio and RF range and for general purpose switching applications. These units are highly stable and their variation in gain with current and temperature is less than with grown junction types.

MECHANICAL OUTLINE



MAXIMUM RATINGS

Maximum Dissipation - Free Air **500mW**
Maximum Operating and/or Storage Temperature **-65 to 200 °C**

DESIGN CHARACTERISTICS AT 25°C (Except as Noted)

SYMBOL	TEST CONDITIONS	2N332	2N332A	2N333	2N333A	2N334	2N334A	2N335	2N335A	2N336	2N336A	UNITS
		Min. Max.	Min. Max.	Min. Max.	Min. Max.	Min. Max.	Min. Max.	Min. Max.	Min. Max.	Min. Max.	Min. Max.	
BV_{CBO}	$I_C = 50\mu A, I_E = 0$	45 -	45 -	45 -	45 -	45 -	45 -	45 -	45 -	45 -	45 -	V
BV_{CEO}	$I_C = 1mA, I_B = 0$	- -	45 -	- -	45 -	- -	45 -	- -	45 -	- -	45 -	V
BV_{EBO}	$I_E = 100\mu A, I_C = 0$	1 -	4 -	1 -	4 -	1 -	4 -	1 -	4 -	1 -	4 -	V
I_{CBO}	$V_{CB} = 30V, I_E = 0$	- 2	- 0.5	- 2	- 0.5	- 2	- 0.5	- 2	- 0.5	- 2	- 0.5	μA
I_{CBO}	$V_{CB} = 5V, I_E = 0, T = 150^\circ C$	- 50	- 10	- 50	- 10	- 50	- 10	- 50	- 10	- 50	- 10	μA
I_{CBO}	$V_{CB} = 30V, I_E = 0, T = 150^\circ C$	- -	- 20	- -	- 20	- -	- 20	- -	- 20	- -	- 20	μA
h_{fe}	$I_C = 1\mu A, V_{CB} = 5V, f = 1kc$	9 - 22	9 - 22	18 - 40	18 - 40	18 - 90	18 - 90	36 - 90	36 - 90	76 - 333	76 - 333	-
h_{ib}	$I_C = 1\mu A, V_{CB} = 5V, f = 1kc$	30 - 80	30 - 80	30 - 80	30 - 80	30 - 80	30 - 80	30 - 80	30 - 80	30 - 80	30 - 80	Ω
h_{ob}	$I_C = 1\mu A, V_{CB} = 5V, f = 1kc$	- 1.2	- 1.2	- 1.2	- 1.2	- 1.2	- 1.2	- 1.2	- 1.2	- 1.2	- 1.2	Ωmho
h_{rb}	$I_C = 1\mu A, V_{CB} = 5V, f = 1kc$	- 5	- 5	- 10	- 10	- 10	- 10	- 10	- 10	- 10	- 10	$\times 10^{-4}$
$f_{\alpha b}$	$I_C = 1mA, V_{CB} = 5V$	1 -	2.5 -	2 -	2.5 -	8 -	8 -	2 -	2.5 -	2 -	2.5 -	mc
C_{ob}	$V_{CB} = 5V, I_E = 1mA$	- 30	- 15	- 30	- 15	- 30	- 15	- 30	- 15	- 30	- 15	pf
$V_{CE(sat)}$	$I_C = 5mA, I_B = 2.2mA$	- -	- 1	- -	- 1	- -	- 1	- -	- 1	- -	- 1	V
R_{cs}	$I_C = 5mA, I_B = 1mA$	- 200	- -	- 200	- -	- 200	- -	- 200	- -	- 200	- -	Ω

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