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2N336A

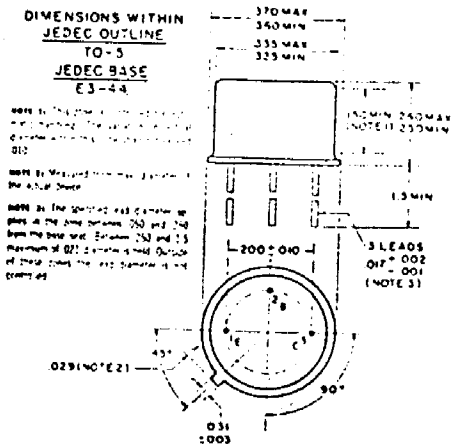
NPN Silicon Transistor

absolute maximum ratings (25°C)

Voltages			
Collector to Base	V_{CB}	45	volts
Collector to Emitter	V_{CE}	45	volts
Emitter to Base	V_{EB}	4	volts
Current			
Collector	I_C	25	ma
Power			
Collector Dissipation RMS	P_c	500	mw @ 25°C (Free Air)
	P_c	83	mw @ 150°C (Free Air)
Temperature			
Storage	T_{STG}	—65 to 200	°C
Operating Junction	T_J	—65 to 175	°C

electrical characteristics (25°C)

		Typ.	Max.	
D-C CHARACTERISTICS				
Collector to Base Voltage ($I_C = 50\ \mu a$, $I_E = 0$)	V_{CBO}			volts
Collector to Emitter Voltage ($I_B = 0$, $I_C = 1$ ma)	V_{CEO}			volts
Emitter to Base Voltage ($I_E = 100\ \mu a$, $I_C = 0$)	V_{EBO}			volts
Forward Current Transfer Ratio (low current) ($I_C = 1$ ma, $V_{CE} = 5$V)	h_{FE}	75		
Saturation Voltage ($I_B = 1$ ma, $I_C = 5$ ma)	$V_{CE\ (SAT)}$	.4	1.0	volts
CUTOFF CHARACTERISTICS				
Collector Current ($V_{CB} = 30$ V; $I_E = 0$; $T_A = 25°C$)	I_{CBO}	1	500	mμa
Collector Current (high temperature) ($V_{CB} = 30$ V; $I_E = 0$; $T_A = 150°C$)	I_{CBO}	1	20	μa
Collector Emitter Current ($V_{CE} = 30$ V; $I_B = 0$; $T_A = 150°C$)	I_{CEO}	60		μa
LOW FREQUENCY CHARACTERISTICS ($V_{CB} = 5$ V; $I_E = -1$ ma; f = 1000 cps)				
Forward Current Transfer Ratio	h_{fe}	95	333	
Input Impedance	h_{ie}	3700	15,000	ohms
Output Admittance	h_{oe}	8.0	35	μmhos
Voltage Feedback Ratio	h_{re}	2.3		$\times 10^{-4}$
Input Impedance	h_{ib}	40	80	ohms
Output Admittance	h_{ob}	.13	1.2	μmhos
Reverse Voltage Transfer Ratio	h_{rb}	1.2	10	$\times 10^{-4}$
Noise Figure ($B_w = 1$ cycle)	NF	11	30	db
HIGH FREQUENCY CHARACTERISTICS (Common Base) ($V_{CB} = 5$ V; $I_E = -1$ ma)				
Output Capacity (f = 1 mc)	C_{ob}	7	15	μμf
Cutoff Frequency	$f_{\alpha b}$	15		mc


DIMENSIONS WITHIN
JEDEC OUTLINE
TO-5
JEDEC BASE
E3-44
.370 MAX
.340 MIN
.335 MAX
.325 MIN
.500 MIN .260 MAX
(NOTE 1) .230 MIN
.500 MIN
.200 ± .010
3 LEADS
.017 +.002 -.001
(NOTE 3)
45°
.029 (NOTE 2)
90°
.031
.003