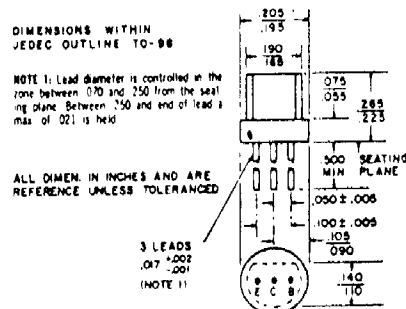




absolute maximum ratings: (25°C) (unless otherwise specified)

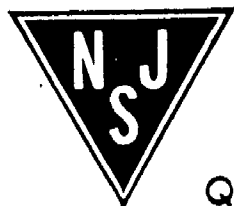
<b>Voltages</b>				
Collector to Emitter	$V_{CEO}$	18		V
Emitter to Base	$V_{EBO}$	5		V
Collector to Base	$V_{CBO}$	18		V
<b>Current</b>				
Collector (Steady State)*	$I_C$	100		ma
<b>Dissipation</b>				
Total Power (Free air at 25°C)**	$P_T$	360		mw
Total Power (Free air at 55°C)**	$P_T$	260		mw
<b>Temperature</b>				
Storage	$T_{STG}$	-55 to +125°C		
Operating	$T_J$	+125°C		

\*Determined from power limitations due to saturation voltage at this current.  
\*\*Derate 2.67 mw/°C increase in ambient temperature above 25°C.



electrical characteristics: (25°C) (unless otherwise specified)

	Sym.	Min.	Max.	Units
<b>STATIC CHARACTERISTICS</b>				
Collector Cutoff Current ( $V_{CB} = 18V$ )	$I_{CBO}$		0.1	$\mu A$
( $V_{CB} = 18V, T_A = 100^\circ C$ )	$I_{CBO}$		10.0	$\mu A$
Emitter Cutoff Current ( $V_{EB} = 5V$ )	$I_{EBO}$		0.1	$\mu A$
Collector Cutoff Current ( $V_{CB} = 25V$ )	$I_{CIS}$		0.1	$\mu A$
Forward Current Transfer Ratio ( $V_{CE} = 4.5V, I_C = 2mA$ )	$h_{FE}$	400	800	
Collector-Emitter Breakdown Voltage ( $I_C = 1mA$ )	$V_{(BR)CEO}$	25		V
<b>DYNAMIC CHARACTERISTICS</b>				
Forward Current Transfer Ratio ( $V_{CE} = 4.5V, I_C = 2mA, f = 1kHz$ )	$h_{fe}$	400	1250	
Output Capacitance, Common Base ( $V_{CB} = 10V, I_E = 0, f = 1MHz$ )	$C_{cbo}$	2	10	pF



electrical characteristics (25°C) unless otherwise specified

		Min.	Typ.	Max.	
<b>Collector Cutoff Current</b> ( $V_{CB} = 25V$ ) ( $V_{CB} = 25V, T_A = 100^\circ C$ )	$I_{CBO}$ $I_{CBO}$			.1 10	$\mu A$ $\mu A$
<b>Emitter Cutoff Current</b> ( $V_{EB} = 5V$ )	$I_{EBO}$			.1	$\mu A$
<b>Forward Current Transfer Ratio</b> ( $V_{CB} = 4.5V, I_C = 2 mA$ )	$h_{FE}$	250		500	
<b>SMALL SIGNAL CHARACTERISTICS</b>					
<b>Forward Current Transfer Ratio</b> ( $V_{CB} = 10V, I_C = 100 \mu A, f = 1 KHz$ )	$h_{fe}$	170 <sup>(*)</sup>	200		
<b>Input Impedance</b> ( $V_{CB} = 10V, I_C = 2 mA, f = 1 KHz$ )	$h_{ib}$		15		ohms
<b>Output Capacitance</b> ( $V_{CB} = 10V, I_E = 0, f = 1 MHz$ )	$C_{ob}$	2.0	7	10	pF
<b>Gain Bandwidth Product</b> ( $I_C = 2 mA, V_{CB} = 5 V$ )	$f_t$		120		MHz
<b>NOISE</b> (wide band—15 Hz to 10 KHz, Equivalent Noise Bandwidth = 15.7 KHz)					
<b>Noise Figure</b> ( $I_C = 100 \mu A, V_{CB} = 4.5V, R_x = 5000 ohms$ )	NF		1.9	5	db

<sup>(\*)</sup> Typically a minimum of 95% of the distribution is above this value.