

Silicon Transistors



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

Voltages

Collector to Emitter	V_{CEO}	-40	Volts
Emitter to Base	V_{EB0}	-4	Volts
Collector to Base	V_{CB0}	-40	Volts

Current

Collector (Continuous)	I_C	300	mA
Collector (Pulsed, 10 μ sec pulse width, = 2% Duty Cycle)	I_C	700	mA

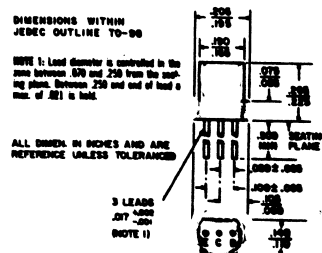
Dissipation

Total Power (Free Air at 25°C) *	P_T	360	mW
Total Power (Free Air at 55°C) *	P_T	260	mW

Temperature

Storage	T_{stg}	-65 to +150	°C
Operating	T_J	+125	°C
Lead temperature, 1/16" $\pm$ 1/32" from case for ten seconds maximum	T_L	+260	°C

* Derate 3.6 mW/°C increase in ambient temperature above 25°C.



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

Static Characteristics

Collector Cutoff Current

		Min.	Max.
($V_{CB} = -40V$)	I_{CBO}		-100 nA
($V_{CB} = -40V$, $T_A = 100^\circ C$)	I_{CBO}		-10 μ A
($V_{CB} = -40V$)	I_{CES}		-100 nA
Emitter Cutoff Current ($V_{EB} = -4V$)	I_{EBO}		-10 μ A

Forward Current Transfer Ratio

($V_{CE} = -10V$, $I_C = -2$ mA)	2N5365	h_{FE}	32	
($V_{CE} = -1V$, $I_C = -50$ mA)	2N5365	h_{FE}	40	120
($V_{CE} = -5V$, $I_C = -300$ mA)	2N5365	h_{FE}	20	
($V_{CE} = -10V$, $I_C = -2$ mA)	2N5366	h_{FE}	80	
($V_{CE} = -1V$, $I_C = -50$ mA)	2N5366	h_{FE}	100	300
($V_{CE} = -5V$, $I_C = -300$ mA)	2N5366	h_{FE}	40	
($V_{CE} = -10V$, $I_C = -2$ mA)	2N5367	h_{FE}	200	
($V_{CE} = -1V$, $I_C = -50$ mA)	2N5367	h_{FE}	250	500
($V_{CE} = -5V$, $I_C = -300$ mA)	2N5367	h_{FE}	75	

Collector Emitter Breakdown Voltage

($I_C = -10$ mA)	$V_{(BR)CEO}$	-40	Volts
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Collector Saturation Voltage

($I_C = -50$ mA, $I_B = -2.5$ mA)	$V_{CE(sat)}$	-250	Volts
($I_C = -300$ mA, $I_B = -30$ mA)	$V_{CE(sat)}$	-1.0	Volts

Base Saturation Voltage

($I_C = -50$ mA, $I_B = -2.5$ mA)	$V_{BE(sat)}$	-1.1	Volts
($I_C = -300$ mA, $I_B = -30$ mA)	$V_{BE(sat)}$	-2.0	Volts

Base Emitter Voltage

($V_{CE} = -10V$, $I_C = -2$ mA)	V_{BE}	-0.5	-0.8	Volts
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