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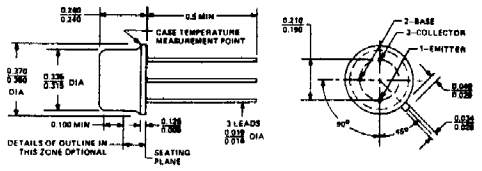
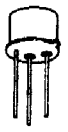
TYPES 2N6461 THRU 2N6464
N-P-N SILICON TRANSISTORS

THE COLLECTOR IS IN ELECTRICAL CONTACT WITH THE CASE





ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

ALL JEDEC TO-39 DIMENSIONS AND NOTES ARE APPLICABLE

Absolute maximum ratings at 25° C free-air temperature (unless otherwise noted)

	2N6461 2N6462	2N6463 2N6464
Collector-Base Voltage	300 V	250 V
Collector-Emitter Voltage (See Note 1)	300 V	250 V
Emitter-Base Voltage	7 V	6 V
Continuous Collector Current	← 100 mA →	
Continuous Device Dissipation at (or below) 25°C Free-Air Temperature (See Note 2)	← 1 W →	
Continuous Device Dissipation at (or below) 25°C Case Temperature (See Note 3)	← 10 W →	
Storage Temperature Range	−65°C to 200°C	
Lead Temperature 1/16 Inch from Case for 10 Seconds	← 300°C →	

NOTES: 1. This value applies between 0 and 10 mA collector current when the base-emitter diode is open-circuited.
2. Derate linearly to 175°C free-air temperature at the rate of 6.67 mW/°C.
3. Derate linearly to 175°C case temperature at the rate of 66.7 mW/°C.

TYPES 2N6461 THRU 2N6464
N-P-N SILICON TRANSISTORS

***electrical characteristics at 25°C free-air temperature (unless otherwise noted)**

PARAMETER		TEST CONDITIONS	2N6461		2N6462		2N6463		2N6464		UNIT
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = 100 μA, I_E = 0	300		300		250		250		V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C = 10 mA, I_B = 0, See Note 4	300		300		250		250		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = 100 μA, I_C = 0	7		7		6		6		V
I_{CBO}	Collector Cutoff Current	V_{CB} = 200 V, I_E = 0		50		50					nA
		V_{CB} = 150 V, I_E = 0						50		50	
		V_{CB} = 200 V, I_E = 0, T_A = 125°C		20		20					μA
		V_{CB} = 150 V, I_E = 0, T_A = 125°C						20		20	
I_{EBO}	Emitter Cutoff Current	V_{EB} = 5 V, I_C = 0		10		10		10		10	nA
h_{FE}	Static Forward Current Transfer Ratio	V_{CE} = 10 V, I_C = 4 mA	20		20		20		20		
		V_{CE} = 10 V, I_C = 20 mA, See Note 4	30	120	100	300	30	120	100	300	
		V_{CE} = 10 V, I_C = 40 mA, See Note 4					30		40		
V_{BE}	Base-Emitter Voltage	V_{CE} = 10 V, I_C = 20 mA, See Note 4		1		1		1		1	V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_B = 2 mA, I_C = 20 mA, See Note 4		1.1		1.1		1		1	V
$\|h_{fe}\|$	Small-Signal Common-Emitter Forward Current Transfer Ratio	V_{CE} = 20 V, I_C = 20 mA, f = 20 MHz	3.5	10	3.5	10	3.5	10	3.5	10	
C_{cb}	Collector-Base Capacitance	V_{CB} = 20 V, I_E = 0, f = 1 MHz, See Note 5		3		3		3		3	pF

NOTES: 4. These parameters must be measured using pulse techniques. t_w = 300 μs, duty cycle ≤ 2%.

5. C_{cb} measurement employs a three-terminal capacitance bridge incorporating a guard circuit. The emitter is connected to th guard terminal of the bridge.