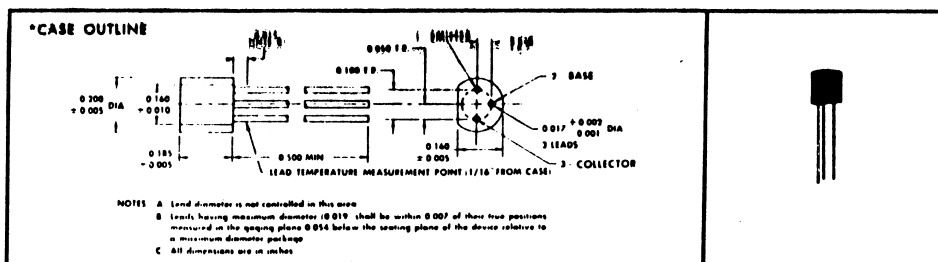


2N5450
N-P-N SILICON TRANSISTOR



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

Collector-Base Voltage	50 V
Collector-Emitter Voltage (See Note 1)	30 V
Emitter-Base Voltage	5 V
Continuous Collector Current	← 800 mA →
Continuous Device Dissipation at (or below) 25°C Free-Air Temperature (See Note 2)	← 360 mW →
Continuous Device Dissipation at (or below) 25°C Lead Temperature (See Note 3)	← 500 mW →
Storage Temperature Range	-65°C to 150°C
Lead Temperature 1/16 Inch from Case for 10 Seconds	← 260°C →

- NOTES: 1. These values apply when the base-emitter diode is open-circuited.
2. Derate linearly to 150°C free-air temperature at the rate of 2.88 mW/deg.
3. Derate linearly to 150°C lead temperature at the rate of 4 mW/deg. Lead temperature is measured on the collector lead 1/16 inch from the case.

*electrical characteristics at 25°C free-air temperature

PARAMETER	TEST CONDITIONS	2N5450		UNIT
		MIN	MAX	
$V_{(BR)CBO}$ Collector-Base Breakdown Voltage	$I_C = 100 \mu A, I_E = 0$	50		V
$V_{(BR)CEO}$ Collector-Emitter Breakdown Voltage	$I_C = 10 \text{ mA}, I_B = 0$, See Note 4	30		V
$V_{(BR)EBO}$ Emitter-Base Breakdown Voltage	$I_E = 100 \mu A, I_C = 0$	5		V
I_{CBO} Collector Cutoff Current	$V_{CB} = 20 \text{ V}, I_E = 0$		100	nA
I_{EBO} Emitter Cutoff Current	$V_{EB} = 3 \text{ V}, I_C = 0$		100	nA
h_{FE} Static Forward Current Transfer Ratio	$V_{CE} = 2 \text{ V}, I_C = 50 \text{ mA}$, See Note 4	50	150	
V_{BE} Base-Emitter Voltage	$V_{CE} = 2 \text{ V}, I_C = 100 \text{ mA}$, See Note 4	0.5	1	V
$V_{CE(sat)}$ Collector-Emitter Saturation Voltage	$I_B = 5 \text{ mA}, I_C = 100 \text{ mA}$, See Note 4	0.8		V
$ h_{fe} $ Small-Signal Common-Emitter Forward Current Transfer Ratio	$V_{CE} = 2 \text{ V}, I_C = 50 \text{ mA}$, $f = 20 \text{ MHz}$	5		
C_{cb} Collector-Base Capacitance	$V_{CB} = 10 \text{ V}, I_E = 0$, $f = 1 \text{ MHz}$, See Note 5	12		pF

- NOTES: 4. These parameters must be measured using pulse techniques. $t_p = 300 \mu s$, duty cycle $\leq 2\%$.
5. C_{cb} is measured using three-terminal measurement techniques with the emitter guarded.

*Indicates JEDEC registered data

