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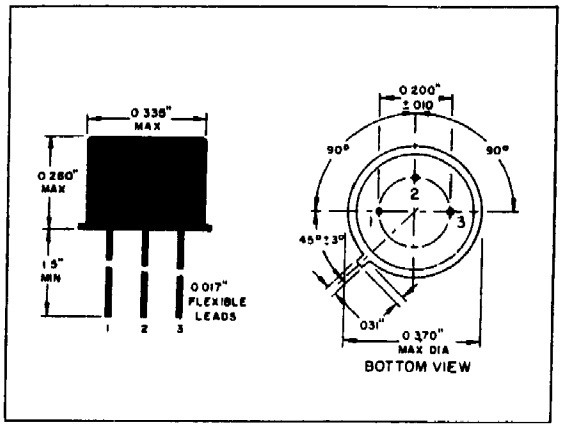
2N1131A

PNP SILICON PLANAR TRANSISTOR

MECHANICAL DATA

CASE: JEDEC TO-5

TERMINAL CONNECTIONS:
Lead 1 Emitter
Lead 2 Base
Lead 3 Collector (Electrically connected to case)



ELECTRICAL DATA

ABSOLUTE MAXIMUM RATINGS:

Collector to Base Voltage V_{CBO}	—60 volts
Collector to Emitter Voltage ($R_{BE} \leq 10\Omega$) V_{CER}	—60 volts
Collector to Emitter Voltage V_{CEO}	—40 volts
Emitter to Base Voltage V_{EBO}	—5 volts
Total Device Dissipation	
@ Case Temperature 25° C	2.0 watts
@ Case Temperature 100° C	1.0 watts
@ Free Air Temperature 25° C	0.6 watts
Junction Temperature (Operating)	—65° C to +175° C
Storage Temperature	—65° C to +300° C

ELECTRICAL CHARACTERISTICS: @25° C (unless otherwise noted)

PARAMETER	SYM.	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Collector to Base Breakdown Voltage	BV_{CBO}	I_C = —100 μA	—60	....	....	volts
Collector to Emitter Breakdown Voltage ▲	BV_{CER}	$R_{BE} \leq 10\Omega$, I_C = —100 mA	—60	....	....	volts
Collector to Emitter Breakdown Voltage ▲	BV_{CEO}	I_C = —100 mA	—40	....	....	volts
Emitter to Base Breakdown Voltage	BV_{EBO}	I_E = —100 μA	—5	....	....	volts
Collector Cutoff Current	I_{CBO1}	V_{CB} = —35 V	....	.01	1.0	μA
Collector Cutoff Current	I_{CBO2}	V_{CB} = —35 V, TA = +150° C	....	1.0	100	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = —2	....	.01	100	μA
DC Current Gain ▲	h_{FE1}	V_{CE} = —10 V, I_C = —150 mA	20	....	45	....
DC Current Gain	h_{FE2}	V_{CE} = —10 V, I_C = —5 mA	15	....	....	....
Collector to Emitter Saturation Voltage ▲	$V_{CE(sat)}$	I_C = —150 mA, I_B = —15 mA	....	—0.5	—1.5	volts
Base to Emitter Saturation Voltage ▲	$V_{BE(sat)}$	I_C = —150 mA, I_B = —15 mA	....	....	—1.3	volts
High Frequency Small Signal Current Gain	hfe	V_{CE} = —10 V, I_C = — 50 mA, f=20 mc	2.5	....	....	....
Collector Capacitance	Cob	V_{CB} = —10 V, I_E = 0 mA, f=1 mc	....	....	45	pf
Input Capacitance	Cib	V_{EB} = —.5 V, I_C =0 mA	....	....	80	pf

▲ Pulse width ≤ 300 μsec, Duty Cycle ≤ 2%