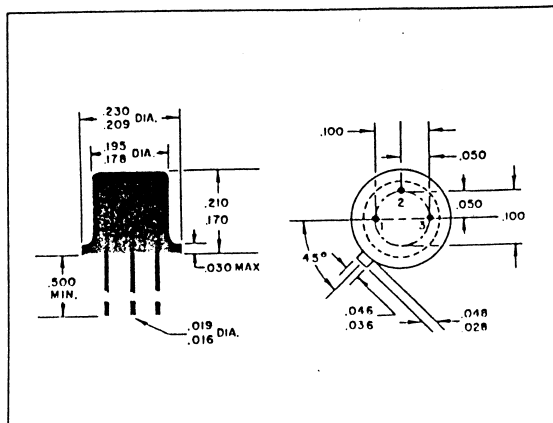


MECHANICAL DATA

CASE: JEDEC TO-18
TERMINAL CONNECTIONS:
Lead 1 Emitter Lead 2 Base
Lead 3 Collector (Electrically connected to case)



2N2222

ELECTRICAL DATA

ABSOLUTE MAXIMUM RATINGS:

Collector to Base Voltage V_{CBO}	60 volts
Collector to Emitter Voltage V_{CEO}	30 volts
Emitter to Base Voltage V_{EBO}	5 volts
Total Device Dissipation	
@ Case Temperature 25° C	1.8 watts
@ Case Temperature 100° C	0.9 watts
@ Free Air Temperature 25° C	0.5 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}	$I_C=10 \mu A$	60	....	....	volts
Collector to Emitter Breakdown Voltage ▲	BV_{CEO}	$I_C=10 mA$	30	....	....	volts
Emitter to Base Breakdown Voltage	BV_{EBO}	$I_E=10 \mu A$	5	....	....	volts
Collector Cutoff Current	I_{CBO1}	$V_{CB}=50 V$	....	....	10	nA
Collector Cutoff Current	I_{CBO2}	$V_{CB}=50 V, T_A=+150^\circ C$	....	....	10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=3 V$	....	....	10	nA
DC Current Gain	h_{FE1}	$V_{CE}=10 V, I_C=0.1 mA$	35	55	....	....
DC Current Gain	h_{FE2}	$V_{CE}=10 V, I_C=1.0 mA$	50	100	....	....
DC Current Gain ▲	h_{FE3}	$V_{CE}=10 V, I_C=10 mA$	75	150	....	....
DC Current Gain ▲	h_{FE4}	$V_{CE}=10 V, I_C=150 mA$	100	200	300	....
DC Current Gain ▲	h_{FE5}	$V_{CE}=10 V, I_C=500 mA$	30	65	....	....
DC Current Gain ▲	h_{FE6}	$V_{CE}=1 V, I_C=150 mA$	50	90	....	....
Collector to Emitter Saturation Voltage ▲	$V_{CE(sat) 1}$	$I_C=150 mA, I_B=15 mA$	....	0.2	0.4	volts
Collector to Emitter Saturation Voltage ▲	$V_{CE(sat) 2}$	$I_C=500 mA, I_B=50 mA$	....	0.5	1.6	volts
Base to Emitter Saturation Voltage ▲	$V_{BE(sat) 1}$	$I_C=150 mA, I_B=15 mA$	....	1.1	1.3	volts
Base to Emitter Saturation Voltage ▲	$V_{BE(sat) 2}$	$I_C=500 mA, I_B=50 mA$	....	1.5	2.6	volts
High Frequency Small Signal Current Gain	h_{fe}	$V_{CE}=20 V, I_C=20 mA, f=100 mc$	2.5	3.5	....	....
Collector Capacitance	C_{ob}	$V_{CB}=10 V, I_E=0 mA$	....	7	8	pf
Current Gain-Bandwidth Product	f_t	$V_{CE}=20 V, I_C=20 mA, f=100 mc$	250	350	....	mc
Real Part of Input Impedance	$Re(h_{ie})$	$V_{CE}=20 V, I_C=20 mA$	....	....	60	ohms