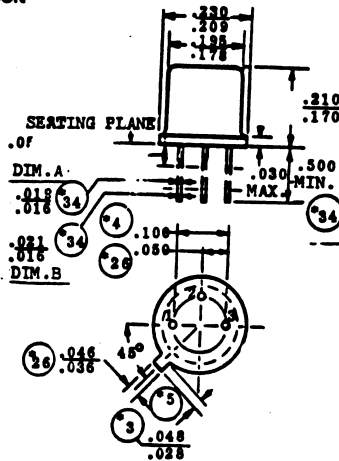


2N3250,A
2N3251,A

CASE 22, STYLE 1
TO-18 (TO-206AA)

GENERAL PURPOSE TRANSISTOR
PNP SILICON



MAXIMUM RATINGS

Rating	Symbol	2N3250 2N3251	2N3250A 2N3251A	Unit
Collector-Emitter Voltage	V _{CEO}	40	60	Vdc
Collector-Base Voltage	V _{CBO}	50	60	Vdc
Emitter-Base Voltage	V _{EBO}	5.0		Vdc
Collector Current	I _C	200		mAdc
Total Device Dissipation @ T _A = 25°C Derate above 25°C	P _D	0.36	2.06	Watt mW/°C
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	1.2	6.9	Watts mW/°C
Operating and Storage Temperature Temperature Range	T _J , T _{stg}	-65 to +200		°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	0.15	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	0.49	mW/°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (1) (I _C = 10 mAdc)	V _{(BR)CEO}	40 60	—	Vdc
Collector-Base Breakdown Voltage (I _C = 10 μAdc)	V _{(BR)CBO}	50 60	—	Vdc
Emitter-Base Breakdown Voltage (I _E = 10 μAdc)	V _{(BR)EBO}	5.0	—	Vdc
Collector Cutoff Current (V _{CE} = 40 Vdc, V _{BE} = 3.0 Vdc)	I _{CEX}	—	20	Adc
Base Cutoff Current (V _{CE} = 40 Vdc, V _{BE} = 3.0 Vdc)	I _{BL}	—	50	nAdc
ON CHARACTERISTICS				
DC Forward Current Transfer Ratio (1) (I _C = 0.1 mAdc, V _{CE} = 1.0 Vdc)	h _{FE}	40 80	—	—
(I _C = 1.0 mAdc, V _{CE} = 1.0 Vdc)		45 90	—	—
(I _C = 10 mAdc, V _{CE} = 1.0 Vdc)		50 100	150 300	—
(I _C = 50 mAdc, V _{CE} = 1.0 Vdc)		15 30	—	—
Collector-Emitter Saturation Voltage (1) (I _C = 10 mAdc, I _B = 1.0 mAdc) (I _C = 50 mAdc, I _B = 5.0 mAdc)	V _{CE(sat)}	—	0.25 0.5	Vdc
Base-Emitter Saturation Voltage (1) (I _C = 10 mAdc, I _B = 1.0 mAdc) (I _C = 50 mAdc, I _B = 5.0 mAdc)	V _{BE(sat)}	0.6 —	0.9 1.2	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain — Bandwidth Product (I _C = 10 mAdc, V _{CE} = 20 Vdc, f = 100 MHz)	f _T	250 300	—	MHz
Output Capacitance (V _{CB} = 10 Vdc, I _E = 0, f = 100 kHz)	C _{obo}	—	6.0	pF
Input Capacitance (V _{CB} = 1.0 Vdc, I _C = 0, f = 100 kHz)	C _{ibo}	—	8.0	pF

