

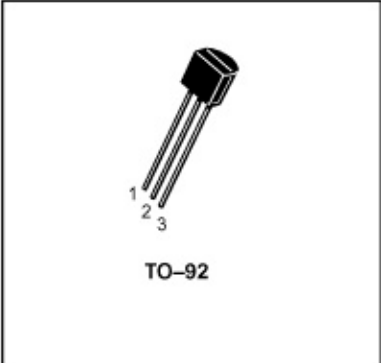
Amplifier Transistors

NPN Silicon

2N2222A

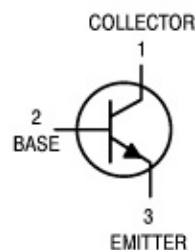
MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector–Emitter Voltage	V_{CEO}	40	Vdc
Collector–Base Voltage	V_{CBO}	75	Vdc
Emitter–Base Voltage	V_{EBO}	6.0	Vdc
Collector Current — Continuous	I_C	600	mA _{dc}
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	625 5.0	mW mW/ $^\circ\text{C}$
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	1.5 12	Watts mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$



THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	$^\circ\text{C}/\text{W}$



ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector–Emitter Breakdown Voltage ($I_C = 10 \text{ mA}_{dc}, I_E = 0$)	$V_{(BR)CEO}$	40	—	Vdc
Collector–Base Breakdown Voltage ($I_C = 10 \mu\text{A}_{dc}, I_E = 0$)	$V_{(BR)CBO}$	75	—	Vdc
Emitter–Base Breakdown Voltage ($I_E = 10 \mu\text{A}_{dc}, I_C = 0$)	$V_{(BR)EBO}$	6.0	—	Vdc
Collector Cutoff Current ($V_{CE} = 60 \text{ Vdc}, V_{EB(off)} = 3.0 \text{ Vdc}$)	I_{CEX}	—	10	nA _{dc}
Collector Cutoff Current ($V_{CB} = 60 \text{ Vdc}, I_E = 0$) ($V_{CB} = 60 \text{ Vdc}, I_E = 0, T_A = 150^\circ\text{C}$)	I_{CBO}	— —	0.01 10	μA_{dc}
Emitter Cutoff Current ($V_{EB} = 3.0 \text{ Vdc}, I_C = 0$)	I_{EBO}	—	10	nA _{dc}
Collector Cutoff Current ($V_{CE} = 10 \text{ V}$)	I_{CEO}	—	10	nA _{dc}
Base Cutoff Current ($V_{CE} = 60 \text{ Vdc}, V_{EB(off)} = 3.0 \text{ Vdc}$)	I_{BEX}	—	20	nA _{dc}