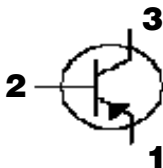
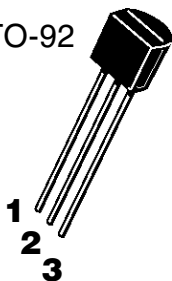




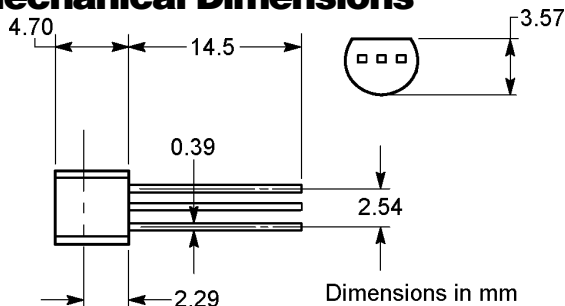
2N4402

Description

TO-92



Mechanical Dimensions



Maximum Ratings

Ratings	Symbol	Value	Units
Collector - Emitter Voltage	V_{CEO}	40	V
Collector - Base Voltage	V_{CBO}	40	V
Emitter - Base Voltage	V_{EBO}	5.0	V
Collector Current (Continuous)	I_C	600	mA
Total Device Dissipation FR-5 Board (Note1) $T_A = 25^\circ\text{C}$	P_D	625	mW
Junction and Storage Temperature	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

Electrical Characteristics @ 25°C

Characteristic	Symbol	Min	Max	Unit
Collector - Emitter Breakdown Voltage ($I_C = 1.0\text{mA}$)	$V_{BR(CEO)}$	40	---	V
Collector - Base Breakdown Voltage ($I_C = 0.1\text{mA}$)	$V_{BR(CBO)}$	40	---	V
Emitter - Base Breakdown Voltage ($I_E = 0.01\text{mA}$)	$V_{BR(EBO)}$	5.0	---	V
Collector Cutoff Current ($V_{CE} = 35\text{V}, V_{EB} = 0.4\text{V}$)	I_{CEX}	---	0.1	μA
DC Current Gain ($I_C = 1.0\text{mA}, V_{CE} = 1.0\text{V}$) ($I_C = 10\text{mA}, V_{CE} = 1.0\text{V}$) ($I_C = 150\text{mA}, V_{CE} = 2.0\text{V}$) ($I_C = 500\text{mA}, V_{CE} = 2.0\text{V}$)	h_{FE}	30 50 50 20	---	---
Collector - Emitter Saturation Voltage (Note 3) ($I_C = 150\text{mA}, I_B = 15\text{mA}$) ($I_C = 500\text{mA}, I_B = 50\text{mA}$)	$V_{CE(sat)}$	---	0.4 0.75	V
Base - Emitter Saturation Voltage (Note 3) ($I_C = 150\text{mA}, I_B = 15\text{mA}$) ($I_C = 500\text{mA}, I_B = 50\text{mA}$)	$V_{BE(sat)}$	---	0.95 1.3	V
Current - Gain - Bandwidth Product ($I_C = 20\text{mA}, V_{CE} = 10\text{V}$)	f_T	150	---	MHz