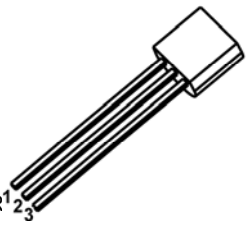
ShenzhenTaimaoTechnology Co.,Ltd.

TO-92 Plastic-Encapsulate Transistors

2N4402 TRANSISTOR (PNP)

TO – 92

1. EMITTER
2. BASE
3. COLLECTOR



FEATURES

- General Purpose Amplifier Transistor

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.6	A
P_C	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -0.1mA,I_E=0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.1mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V,I_C=0			-0.1	μA
DC current gain	h_{FE}*	V_{CE}=-1V, I_C=-1mA	30			
		V_{CE}=-1V, I_C=-10mA	50			
		V_{CE}=-2V, I_C=-150mA	50		150	
		V_{CE}=-2V, I_C=-500mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=-150mA,I_B=-15mA			-0.4	V
		I_C=-500mA,I_B=-50mA			-0.75	V
Base-emitter saturation voltage	$V_{BE\ (sat)}$*	I_C=-150mA,I_B=-15mA	-0.75		-0.95	V
		I_C=-500mA,I_B=-50mA			-1.3	V
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0, f=1MHz			8.5	pF
Emitter input capacitance	C_{ib}	V_{EB}=-0.5V,I_C=0, f=1MHz			30	pF
Transition frequency	f_T	V_{CE}=-10V,I_C=-20mA, f=100MHz	150			MHz

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.