



TO-92 Plastic-Encapsulate Transistors

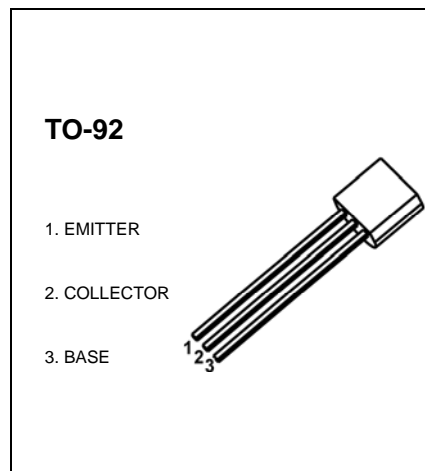
2SA952 TRANSISTOR (PNP)

FEATURES

- High total power dissipation
- High h_{FE} and low $V_{CE(sat)}$

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-700	mA
P_C	Collector Power Dissipation	600	mW
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	90		400	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}, I_C = -700\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -700\text{mA}, I_B = -70\text{mA}$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -700\text{mA}, I_B = -70\text{mA}$			-1.2	V
Base-emitter voltage	V_{BE}	$V_{CE} = -6\text{V}, I_C = -10\text{mA}$	-0.6		-0.7	V
Transition frequency	f_T	$V_{CE} = -6\text{V}, I_C = -10\text{mA}$	50			MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -6\text{V}, I_E = 0, f = 1\text{MHz}$			40	pF

CLASSIFICATION $h_{FE(1)}$

Rank	M	L	K
Range	90-180	135-270	200-400