

TO-92 Plastic-Encapsulate Transistors

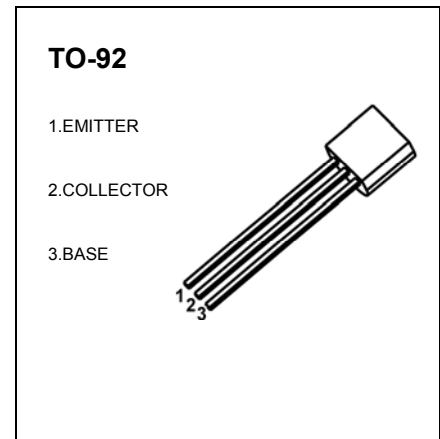
2SA1015 TRANSISTOR (PNP)

FEATURES

- Power dissipation

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-50	V
V _{CE0}	Collector-Emitter Voltage	-50	V
V _{EB0}	Emitter-Base Voltage	-5	V
I _c	Collector Current -Continuous	-150	mA
P _D	Collector Power Dissipation	400	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	312	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -100μA, I _E =0	-50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -0.1mA, I _B =0	-50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -100μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} = -50V, I _E =0			-0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} = -50V, I _B =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5V, I _C =0			-0.1	μA
DC current gain	h _{FE}	V _{CE} = -6V, I _C = -2mA	70		400	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -100mA, I _B = -10mA			-0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -100mA, I _B = -10mA			-1.1	V
Transition frequency	f _T	V _{CE} = -10 V, I _C = -1mA f =30MHz	80			MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			7	pF
Noise figure	NF	V _{CE} = -6 V, I _C = -0.1mA, f =1kHz, R _G =10kΩ			6	dB

CLASSIFICATION OF h_{FE}

Rank	O	Y	GR
Range	70-140	120-240	200-400