



Shenzhen Tuofeng Semiconductor Technology Co., Ltd

TO-92 Plastic-Encapsulate Transistors

A1015 TRANSISTOR (PNP)

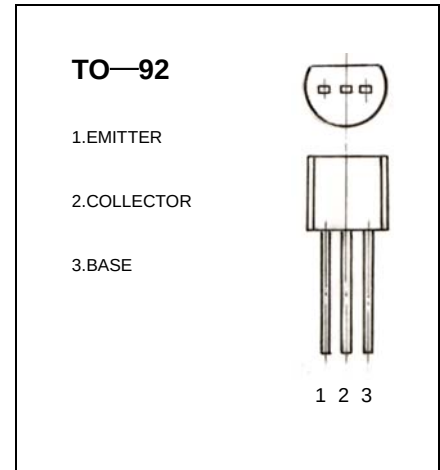
FEATURES

- Power dissipation

MAXIMUM RATINGS* $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-150	mA
P_D	Total Device Dissipation	400	mW
T_J, T_{stg}	Junction and Storage Temperature	-55-150	$^{\circ}\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -0.1\text{ mA}, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50\text{ V}, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -50\text{ V}, I_B = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -6\text{ V}, I_C = -2\text{ mA}$	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$			-1.1	V
Transition frequency	f_T	$V_{CE} = -10\text{ V}, I_C = -1\text{ mA}$ $f = 30\text{ MHz}$	80			MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0$ $f = 1\text{ MHz}$		19		pF
Noise Figure	NF	$V_{CE} = -6\text{ V}, I_C = -0.1\text{ mA}$ $f = 1\text{ KHz}, R_G = 10\text{ K}$			6	dB

CLASSIFICATION OF $h_{FE(1)}$

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

Typical Characteristics

A1015

