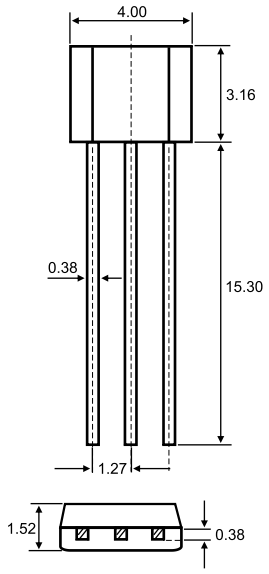
2SA1048

TO-92S Transistor (PNP)

1 2 3

1. EMITTER
2. COLLECTOR
3. BASE

TO-92S



Dimensions in inches and (millimeters)

Features

- ✧ High voltage: V_{CEO}=-50V(Min.)
- ✧ High h_{FE}: h_{FE}=70~400
- ✧ Low noise: NF=1dB(Typ.),10dB(Max.)
- ✧ Complementary to 2SC2458

MAXIMUM RATINGS (T_A=25℃ 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	-0.15	A
P_C	Collector Power Dissipation	0.2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100 μA, I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100 μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50 V, I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5 V, I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}=-6 V, I_C=-2mA	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA			-0.3	V
Transition frequency	f_T	V_{CE}=-10 V, I_C=-1mA	80			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10 V, I_E=0, f=1 MHz			7	pF
Noise figure	NF	V_{CE}=-6 V, I_C=-0.1 mA, f=1 KH_Z, Rg=10 KΩ			10	dB

CLASSIFICATION OF h_{FE}

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

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Typical Characteristics