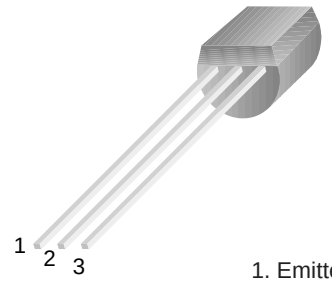
TY Semicondutor®

Product specification

2N5401

TO-92



1. Emitter
2. Base
3. Collector

■ Features

- Switching and amplification in high voltage
- Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.150V)

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-160	V
Collector-emitter voltage	V_{CEO}	-150	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current-continuous	I_C	-600	mA
Collector Power Dissipation	Pc	625	mW
Junction and storage temperature	T_J, T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -100 μA, I_E = 0	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C =- 1.0 mA, I_B = 0	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10 μA, I_C = 0	-5			V
Collector cutoff current	I_{CBO}	V_{CB} =- 120 V, I_E = 0			-50	nA
Emitter cutoff current	I_{EBO}	V_{EB} = -3.0 V, I_C = 0			-50	nA
DC current gain	h_{FE}	I_C = -1.0 mA, V_{CE} = -5 V	50			
		I_C = -10 mA, V_{CE} = -5 V	60		240	
		I_C = -50 mA, V_{CE} = -5 V	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -50 mA, I_B = -5.0 mA			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -50 mA, I_B = -5.0 mA			-1.0	V
Transiston frequency	f_T	V_{CE}=-5V,I_C=-10mA,f=30MHz	100		300	MHz