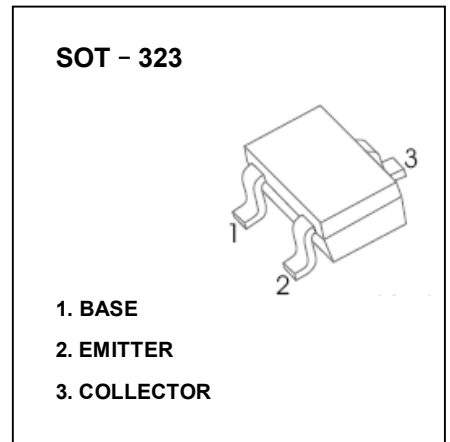


# TRANSISTOR(PNP)

## FEATURES

- High DC Current Gain
- High Voltage
- Complementary to 2SC4177



## MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current	-100	mA
P <sub>C</sub>	Collector Power Dissipation	150	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	833	°C/W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-60			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-50			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-60V, I <sub>E</sub> =0			-100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0			-100	nA
DC current gain	h <sub>FE</sub> *	V <sub>CE</sub> =-6V, I <sub>C</sub> =-1mA	90		600	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA			-0.3	V
Collector-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =-6V, I <sub>C</sub> =-1mA	-0.58		-0.68	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-6V, I <sub>C</sub> =-10mA		180		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz		4.5		pF

\*Pulse test: pulse width ≤350μs, duty cycle ≤ 2.0%.

## CLASSIFICATION OF h<sub>FE</sub>

RANK	M4	M5	M6	M7
RANGE	90 - 180	135 - 270	200 - 400	300 - 600
MARKING	M4	M5	M6	M7

□