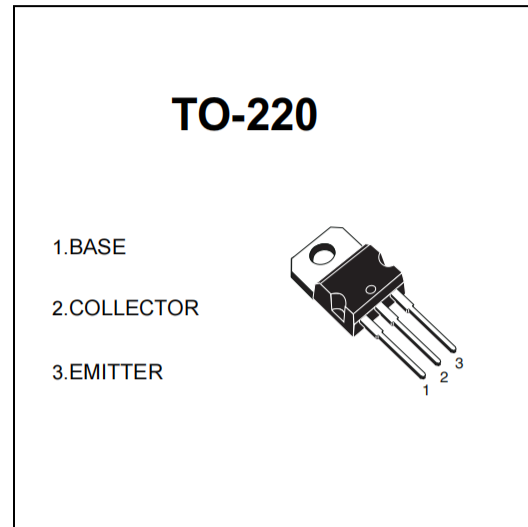


## TO-220 Plastic-Encapsulate Transistors

### TIP127 TRANSISTOR (PNP)

#### FEATURES

- High DC Current Gain
- Electrically Similar to Popular TIP127
- Built-in a Damper Diode at E-C



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

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	100	V
V <sub>CEO</sub>	Collector-Emitter Voltage	100	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	5	A
P <sub>C</sub>	Collector Dissipation	2	W
T <sub>J</sub> , T <sub>stg</sub>	Junction and 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> =1mA, I <sub>E</sub> =0	100			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =30mA, I <sub>B</sub> =0	100			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =3mA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =100V, I <sub>E</sub> =0			10	μA
Collector-emitter cut-off current	I <sub>CE0</sub>	V <sub>CE</sub> =50V, I <sub>E</sub> =0			10	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			2	mA
DC current gain	h <sub>FE(2)</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =4A	1000		10000	
	h <sub>FE(3)</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =8A	100			
Collector-emitter saturation voltage	V <sub>CE(sat)(1)</sub>	I <sub>C</sub> =4A, I <sub>B</sub> =16mA			2	V
	V <sub>CE(sat)(2)</sub>	I <sub>C</sub> =8A, I <sub>B</sub> =80mA			4	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =8A, I <sub>B</sub> =80mA			4.5	V
Base-emitter voltage*	V <sub>BE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =4A			2.8	V
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=0.1MHz			200	pF