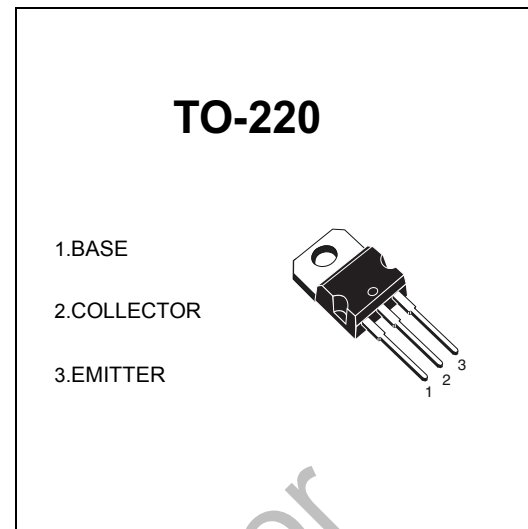


TO-220 Plastic-Encapsulate Transistors

TIP127 TRANSISTOR (PNP)

FEATURES

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



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	100	V
V _{CEO}	Collector-Emitter Voltage	100	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	5	A
P _C	Collector Dissipation	2	W
T _J , T _{stg}	Junction and Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	100			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =30mA, I _B =0	100			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =3mA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =100V, I _E =0			10	μA
Collector-emitter cut-off current	I _{CEO}	V _{CE} =50V, I _E =0			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			2	mA
DC current gain	h _{FE(2)}	V _{CE} =4V, I _C =4A	1000		10000	
	h _{FE(3)}	V _{CE} =4V, I _C =8A	100			
Collector-emitter saturation voltage	V _{CE(sat)(1)}	I _C =4A, I _B =16mA			2	V
	V _{CE(sat)(2)}	I _C =8A, I _B =80mA			4	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =8A, I _B =80mA			4.5	V
Base-emitter voltage*	V _{BE}	V _{CE} =4V, I _C =4A			2.8	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=0.1MHz			200	pF

Typical Characteristics

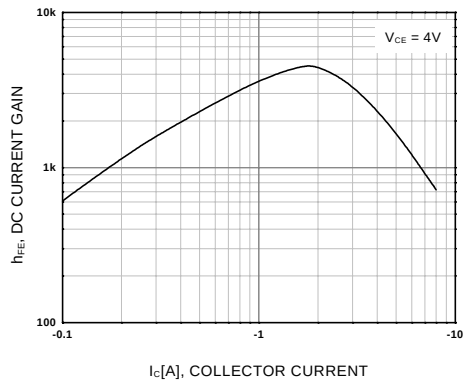


Figure 1. DC current Gain

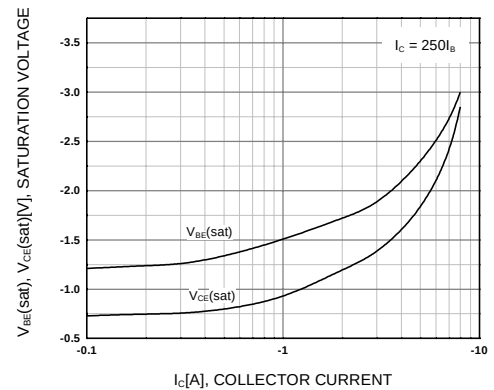


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

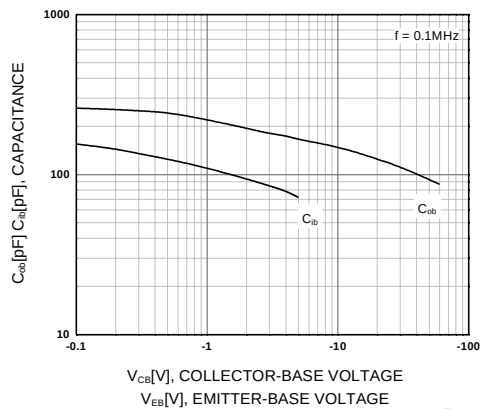


Figure 3. Output and Input Capacitance
vs. Reverse Voltage

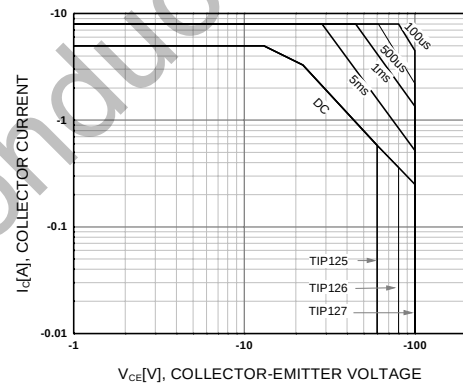


Figure 4. Safe Operating Area

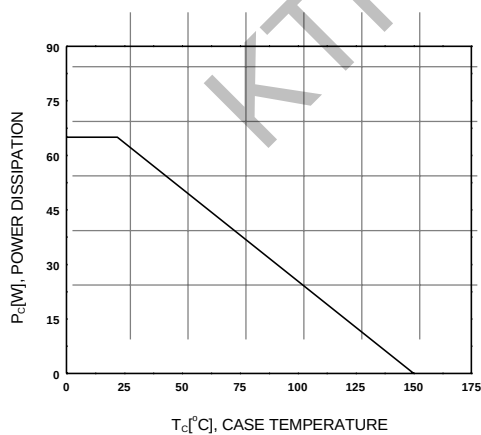


Figure 5. Power Derating