

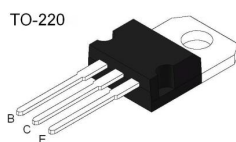
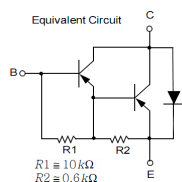
TIP127 PNP

TO-220PLASTIC-ENCAPSULATE TRANSISTORS

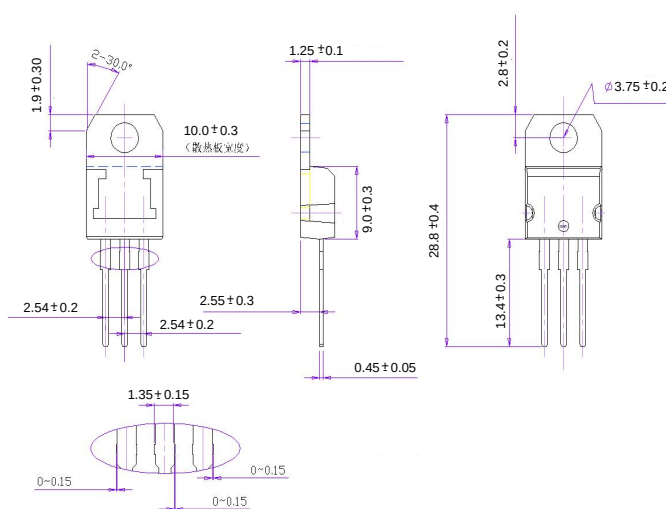
PNP Epitaxial Darlington Transistor

Medium Power Linear Switching Applications

- Complementary to TIP122



TO-220



Dimensions in inches and (millimeters)

Absolute Maximum Rating

Parameter		Symbol	Value	Unit
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CEO}	-100	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current(DC)		I_C	-5	A
Collector Dissipation	Ta =25 °C	P_C	2	W
	Tc =25 °C		50	
Junction Temperature		T_j	150	°C
Storage Temperature		Tstg	-65~150	°C

TIP127 PNP

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = -100mA, I_B = 0$	-100			V
Collector-base cut-off current	I_{CBO}	$V_{CB} = -100V, I_E = 0$			1	mA
Collector- emitter cut-off current	I_{CEO}	$V_{CE} = -50V, I_E = 0$			2	mA
Emitter-base cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			2	mA
* DC current gain	h_{FE}	$V_{CE} = -3V, I_C = -0.5A$ $V_{CE} = -3V, I_C = -3A$	1000 1000			
*Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -12mA$ $I_C = -5A, I_B = -20mA$			-2 -4	V
* Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE} = -3V, I_C = -3A$			-2.5	V
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 0.1MHz$			300	pF

* Pulse Test : $PW \leq 300\mu s$, Duty cycle $\leq 2\%$

RATING AND CHARACTERISTIC CURVES (TIP127)

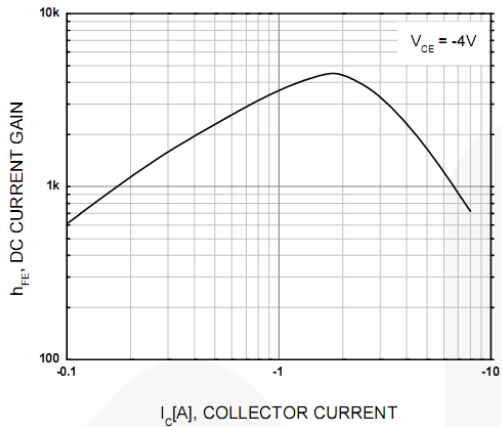


Figure 1. DC current Gain

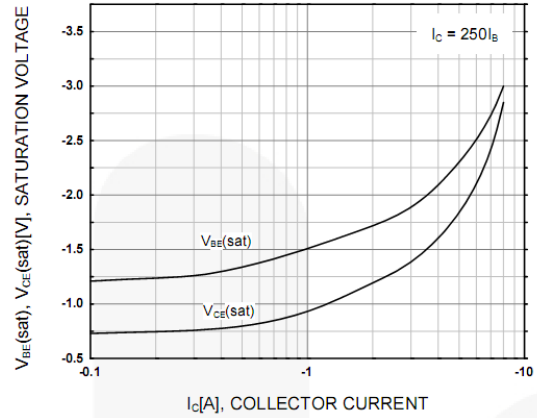


Figure 2. Base-Emitter Saturation Voltage and Collector-Emitter Saturation Voltage

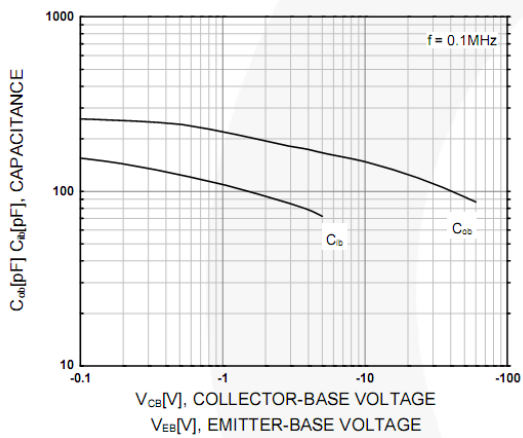


Figure 3. Output and Input Capacitance vs. Reverse Voltage

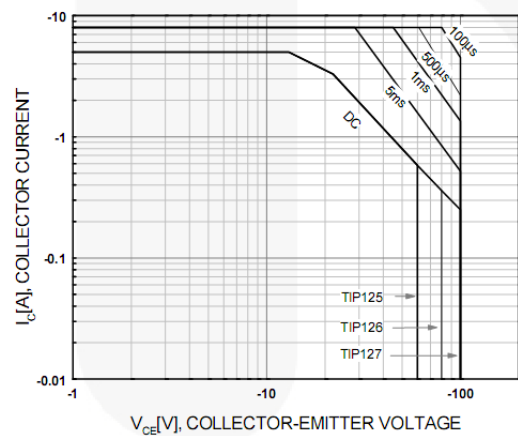


Figure 4. Safe Operating Area

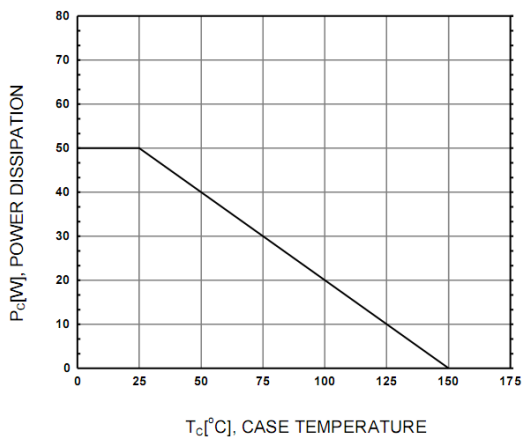


Figure 5. Power Derating