

TIP125/126/127

PNP EPITAXIAL DARLINGTON TRANSISTOR

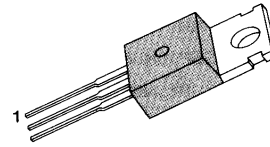
MEDIUM POWER LINEAR SWITCHING APPLICATIONS

- Complement to TIP120/121/122

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage : TIP125	V_{CBO}	-60	V
: TIP126		-80	V
: TIP127		-120	V
Collector Emitter Voltage	V_{CEO}	-60	V
: TIP125		-80	V
: TIP126		-120	V
: TIP127			
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-5	A
Collector Current (Pulse)	I_C	-8	A
Base Current (DC)	I_B	-120	mA
Collector Dissipation ($T_A=5^{\circ}\text{C}$)	P_C	2	W
Collector Dissipation ($T_C=5^{\circ}\text{C}$)	P_C	65	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^{\circ}\text{C}$

TO-220

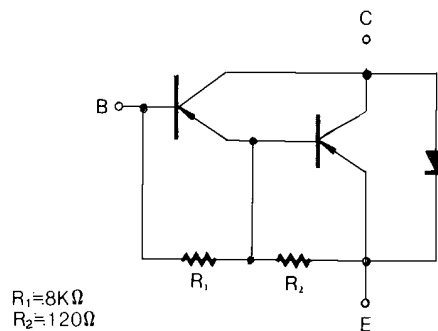
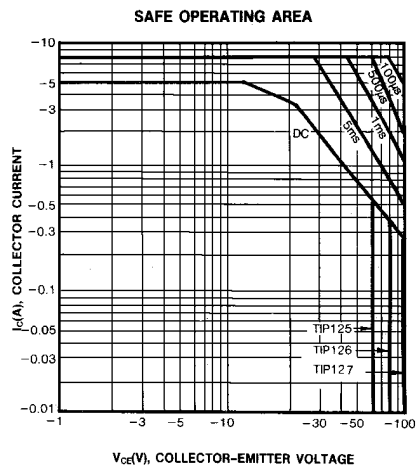
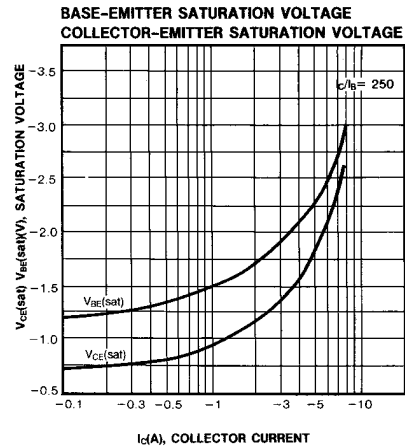
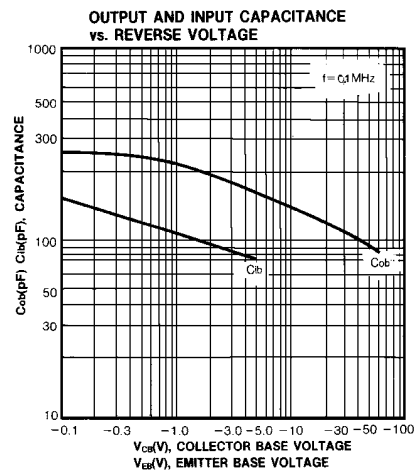
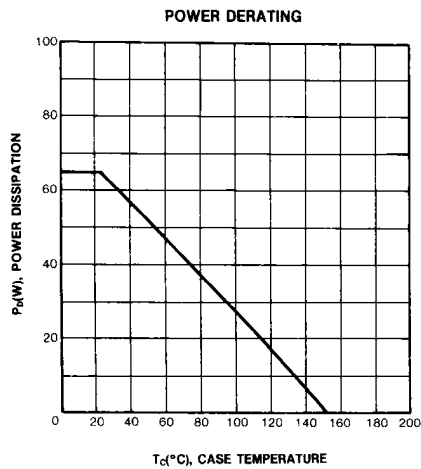
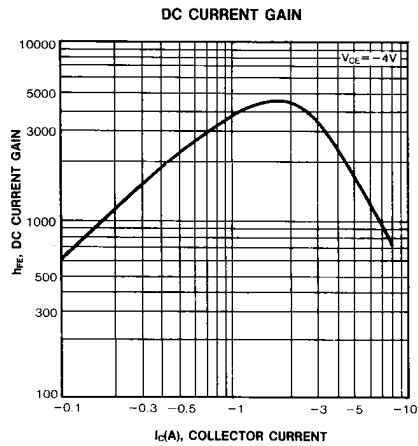


1.Base 2.Collector 3.Emitter

ELECTRICAL CHARACTERISTICS ($T_C = 25^{\circ}\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = -100\text{mA}, I_B = 0$	-60 -80 -120		V
: TIP125					V
: TIP126					V
: TIP127					V
Collector Cutoff Current : TIP125	I_{CEO}	$V_{CE} = -30\text{V}, I_B = 0$		-2	mA
: TIP126		$V_{CE} = -40\text{V}, I_B = 0$		-2	mA
: TIP127		$V_{CE} = -50\text{V}, I_B = 0$		-2	mA
Collector Cutoff Current : TIP125	I_{CBO}	$V_{CB} = -60\text{V}, I_E = 0$		-1	mA
: TIP126		$V_{CB} = -80\text{V}, I_E = 0$		-1	mA
: TIP127		$V_{CB} = -100\text{V}, I_E = 0$		-1	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE} = -5\text{V}, I_C = 0$		-2	mA
* DC Current Gain	h_{FE}	$V_{CE} = -3\text{V}, I_C = 0.5\text{A}$	1000		
		$V_{CE} = -3\text{V}, I_C = -3\text{A}$	1000		
* Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -3\text{A}, I_B = -12\text{mA}$		-2	V
		$I_C = -5\text{A}, I_B = -20\text{mA}$		-4	V
* Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -3\text{V}, I_C = -3\text{A}$		-2.5	V
Output Capacitance	C_{OB}	$V_{CB} = -10\text{V}, I_E = 0, f = 0.1\text{MHz}$		300	pF

* Pulse Test : $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$



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