

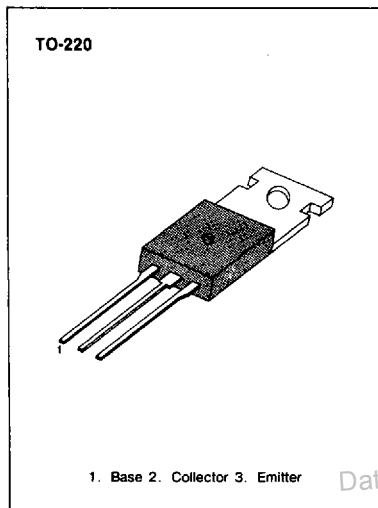
TIP125/126/127

MEDIUM POWER LINEAR SWITCHING APPLICATIONS

- Complement to TIP120/121/122

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage: TIP125	V_{CBO}	- 60	V
: TIP126		- 80	V
: TIP127		- 100	V
Collector-Emitter Voltage	V_{CEO}	- 60	V
: TIP125		- 80	V
: TIP126		- 100	V
: TIP127		- 100	V
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 (Ta = 25°C)	P_C	2	W
Collector Dissipation (Tc = 25°C)	P_C	65	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	- 65 ~ 150	°C

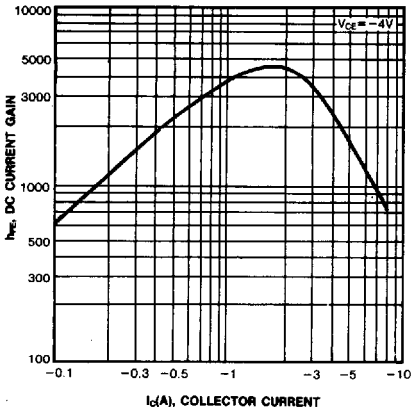


ELECTRICAL CHARACTERISTICS (Ta = 25°C)

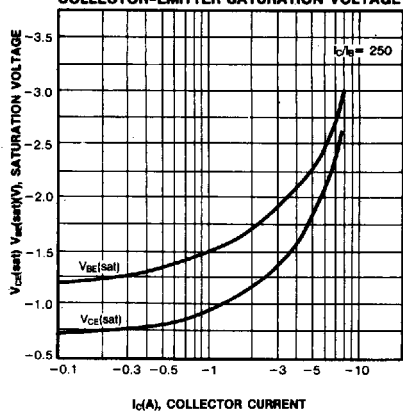
Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CE(sus)}$	$I_C = -100mA, I_B = 0$	- 60		V
: TIP125			- 80		V
: TIP126			- 100		V
Collector Cutoff Current	I_{CEO}	$V_{CE} = -30V, I_B = 0$		- 2	mA
: TIP125				- 2	mA
: TIP126				- 2	mA
Collector Cutoff Current	I_{CBO}	$V_{CE} = -50V, I_B = 0$		- 1	mA
: TIP125				- 1	mA
: TIP126				- 1	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE} = -5V, I_C = 0$		- 2	mA
*DC Current Gain	h_{FE}	$V_{CE} = -3V, I_C = -0.5A$	1000		
*Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$V_{CE} = -3V, I_C = -3A$		- 2	V
		$I_C = -3A, I_B = -12mA$		- 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 $\leq 2\%$

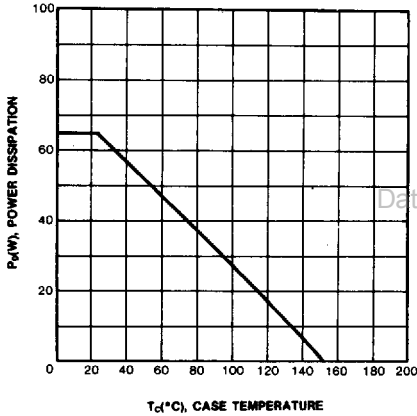
DC CURRENT GAIN



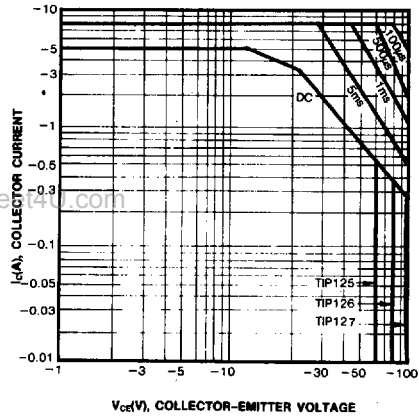
**BASE-EMITTER SATURATION VOLTAGE
 COLLECTOR-EMITTER SATURATION VOLTAGE**



POWER DERATING



SAFE OPERATING AREA



**OUTPUT AND INPUT CAPACITANCE
 vs. REVERSE VOLTAGE**

