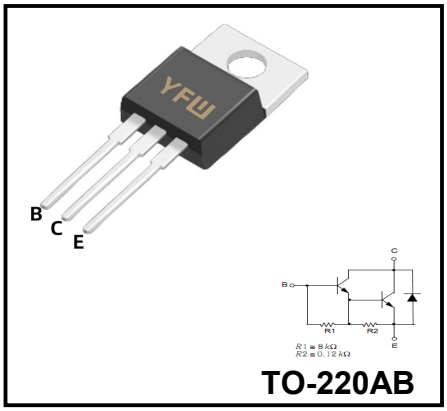
PNP Epitaxial Darlington Transistor



TO-220AB

Medium Power Linear Switching Applications

♦Complementary to TIP120/121/122

Absolute Maximum Rating (Ta=25℃)

Parameter		Symbol	Value			Unit
			TIP125	TIP126	TIP127	
Collector-Base Voltage		V_{CBO}	-60	-80	-100	V
Collector-Emitter Voltage		V_{CEO}	-60	-80	-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		65			
Junction Temperature		Tj	150			C
Storage Temperature		Tstg	-65 ～150			C

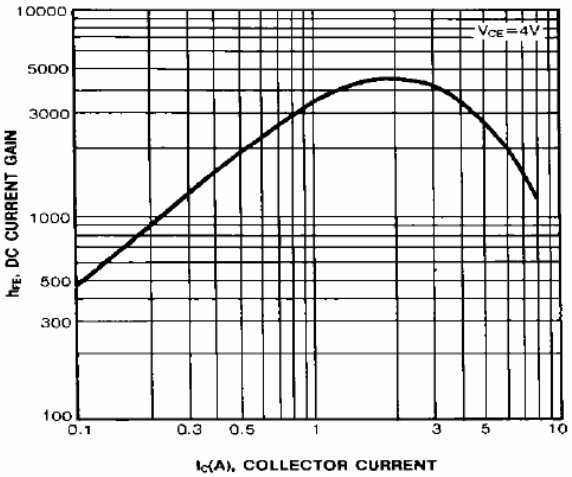
Electrical Characteristics (Ta=25℃)

Parameter		Symbol	Conditions	Value			Unit
				Min	Typ	Max	
Collector-Emitter Sustaining Voltage	TIP125 TIP126 TIP127	$V_{CEO(sus)}$	I_C = -100mA， I_B = 0	-60 -80 -120			V
Collector cut-off current	TIP125 TIP126 TIP127	I_{CBO}	V_{CB} =- 60V， I_E = 0 V_{CB} = -80V， I_E = 0 V_{CB} = -100V， I_E = 0			-1	mA
Collector cut-off current	TIP125 TIP126 TIP127	I_{CEO}	V_{CE}= -30V， I_E = 0 V_{CE}= -40V， I_E = 0 V_{CE} = -50V， I_E = 0			-2	mA
Emitter cut-off current			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		Cob	V_{CB}=-10V, I_E=0, f = 0.1MHz			200	pF

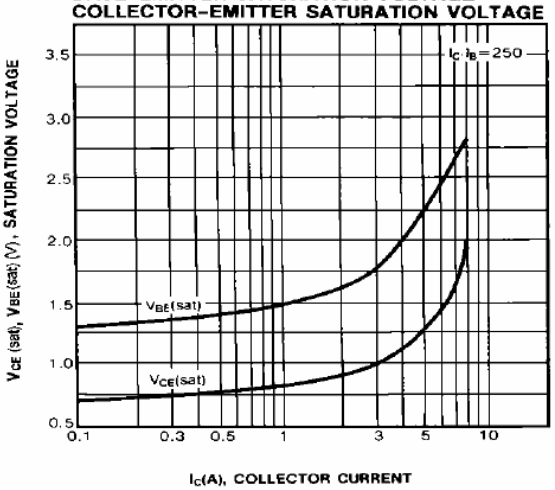
* Pulse Test : PW≤300μs, Duty cycle≤2%

Typical Characteristics

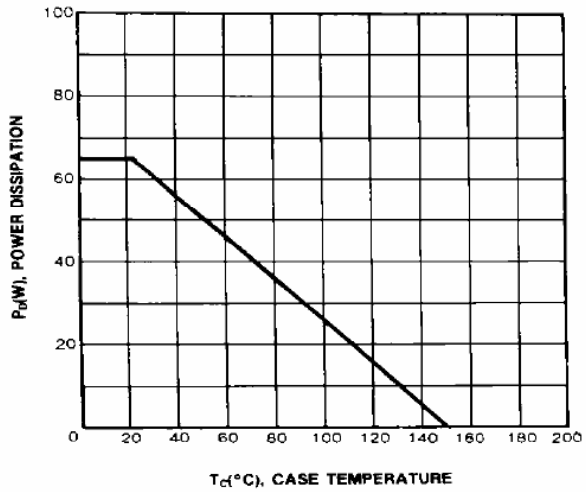
DC CURRENT GAIN



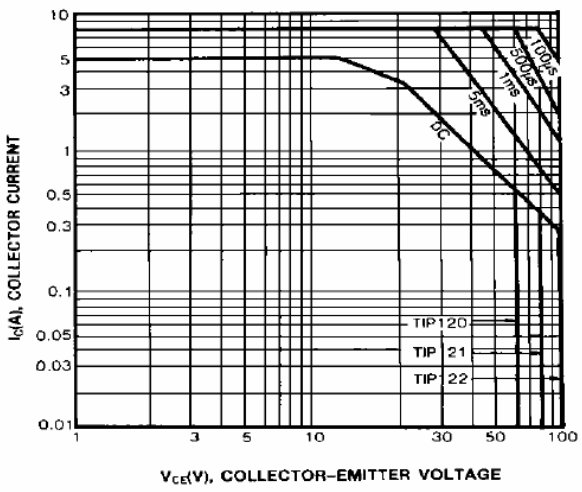
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



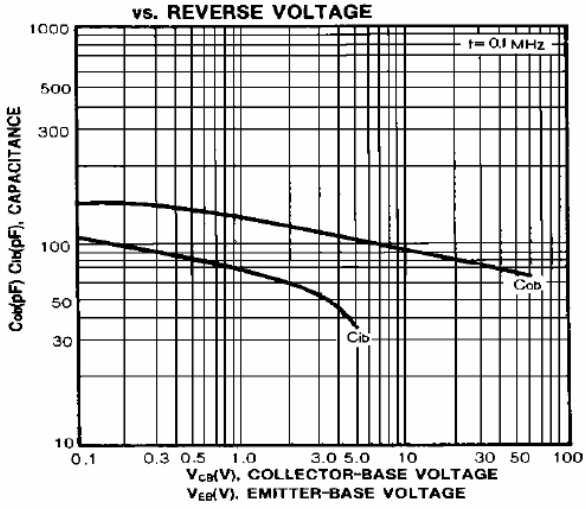
POWER DERATING



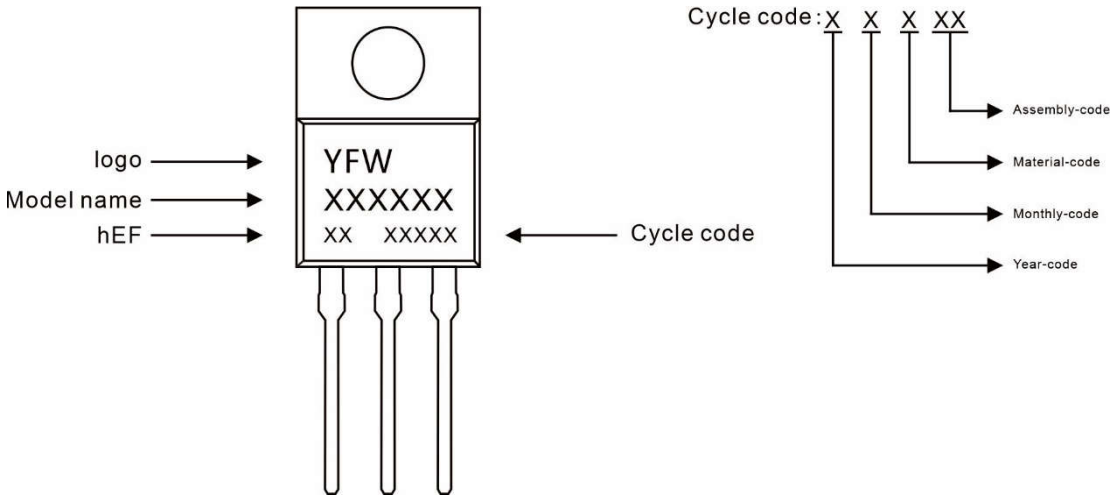
SAFE OPERATING AREA



OUTPUT AND INPUT CAPACITANCE
vs. REVERSE VOLTAGE



Marking Diagram

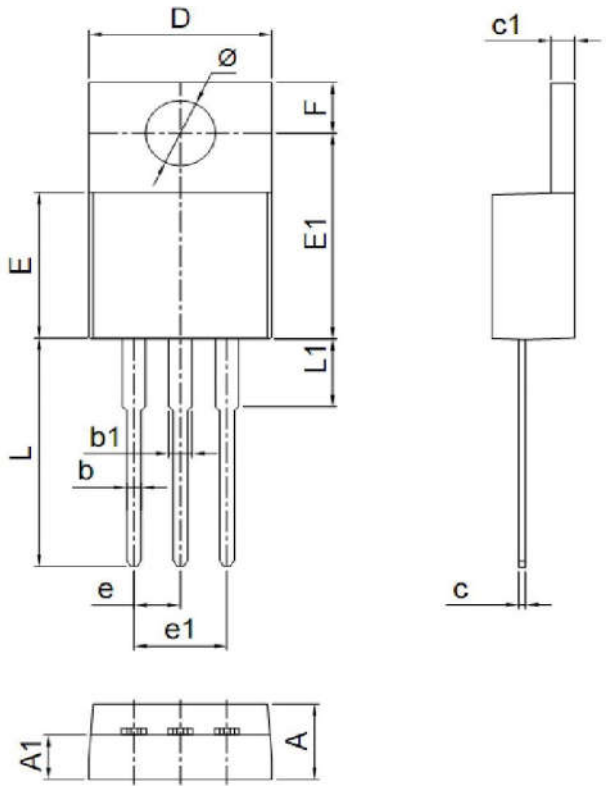


Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
TIPXXX	TO-220AB	0.07oz(1.96g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220AB



Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.30	4.70	0.169	0.185
A1	2.52	2.82	0.099	0.111
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.30	0.50	0.012	0.020
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
E1	12.00	12.50	0.472	0.492
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	2.60	2.80	0.102	0.110
L	13.20	13.80	0.520	0.543
L1	3.80	4.20	0.150	0.165
Φ	3.60	3.96	0.142	0.156

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