

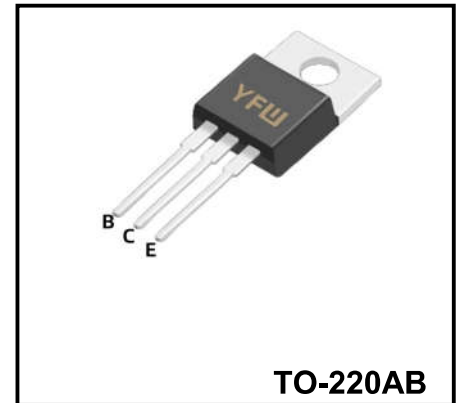
PNP Plastic-Encapsulate Transistors

Applications

◆Linear and switching industrial application

Features

◆Complementary to TIP31C



TO-220AB

Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Value	Unit
Collector-Base Voltage		BV_{CBO}	-100	V
Collector-Emitter Voltage		BV_{CEO}	-100	V
Emitter-Base Voltage		BV_{EBO}	-5	V
Collector Current(DC)		I_C	-3	A
Collector peak current		I_{CM}	-	A
Base current		I_B	-1	A
Collector Dissipation	Ta =25 °C	P_C	2	W
	Tc =25 °C		40	
Junction Temperature		T_j	150	°C
Storage Temperature		T_{stg}	-65~150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = -30mA, I_B = 0$	-100			V
Collector cut-off current	I_{CEO}	$V_{CE} = -60V, I_E = 0$			-0.3	mA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_E = 0$			-1	mA
Collector cut-off current	I_{CES}	$V_{CE} = -100V, V_{BE} = 0$			-0.2	mA
DC current gain*	h_{FE}	$V_{CE} = -4V, I_C = -1A$ $V_{CE} = -4V, I_C = -3A$	25 10			
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = -3A, I_B = -375mA$			-1.2	V
Base-Emitter ON Voltage*	$V_{BE(on)}$	$V_{CE} = -4V, I_C = -3A$			-1.8	V
Current Gain Bandwidth Product*	f_T	$V_{CE} = -10V, I_C = -500mA$	3.0			MHz

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

Electrical characteristics

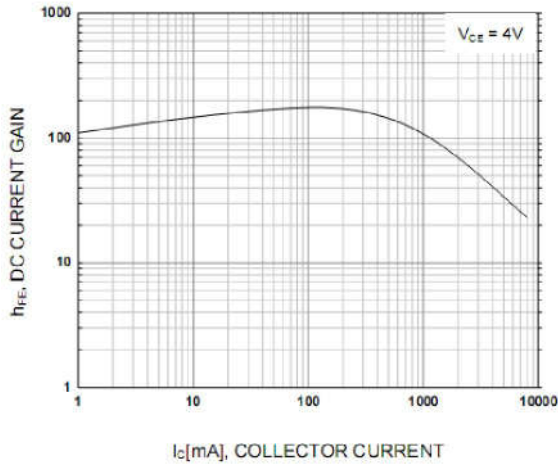


Figure 1. DC current Gain

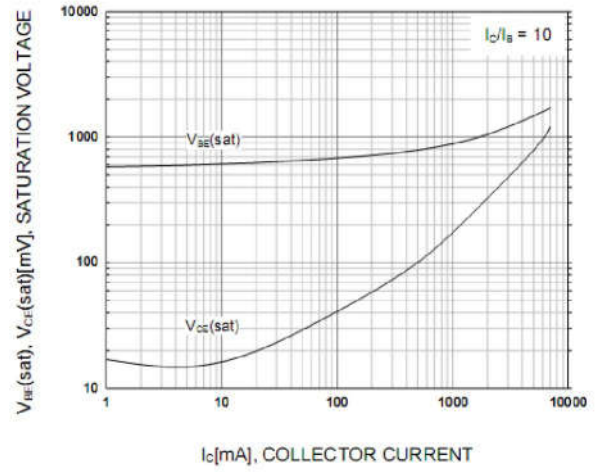


Figure 3. Base-Emitter Saturation Voltage
Collector-emitter Saturation Voltage

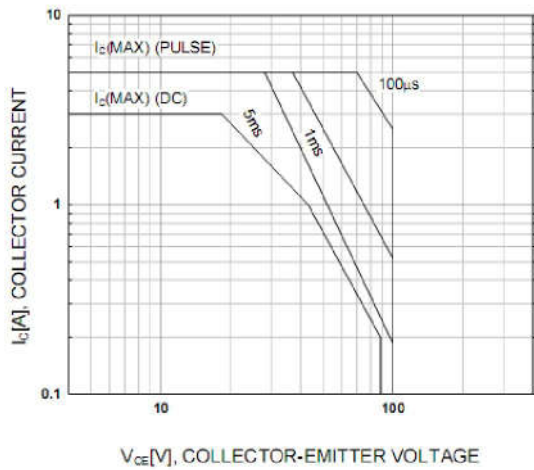


Figure 3. Safe Operating Area

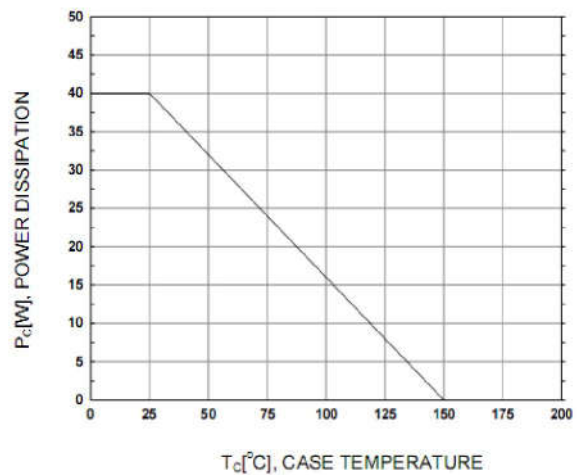
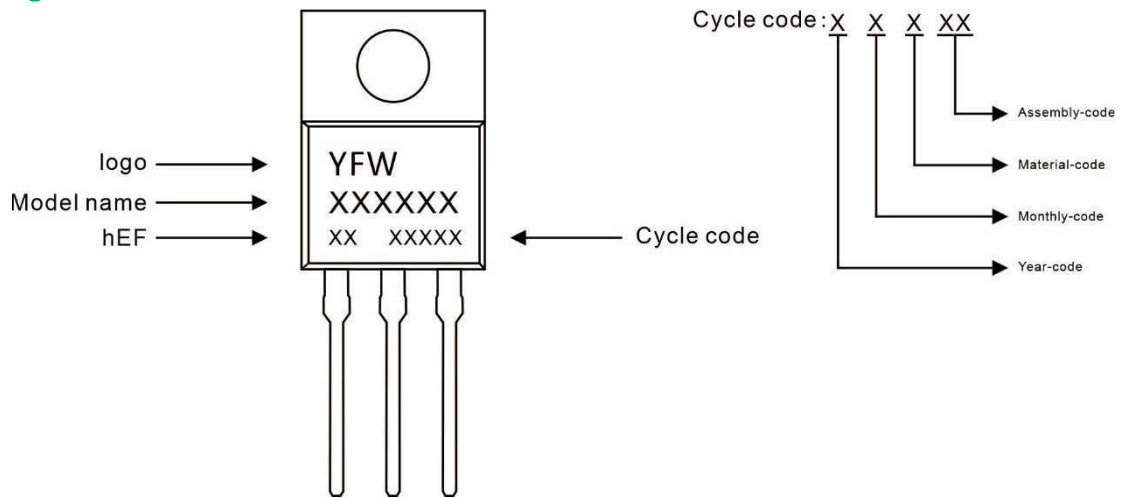


Figure 4. Power Derating

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
TIP32C	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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