DONGGUAN NANJING ELECTRONICS LTD.,

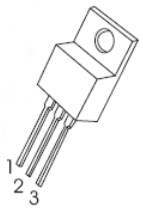
TO-220-3L Plastic-Encapsulate Transistors

TIP32C TRANSISTOR (PNP) **FEATURES**

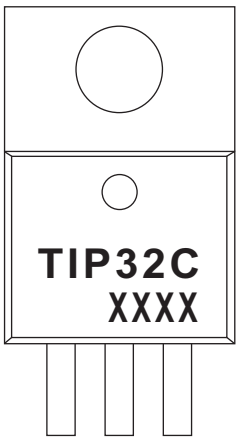
- Medium Power Linear Switching Applications

TO-220-3L

1. BASE
2. COLLECTOR
3. EMITTER



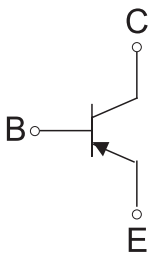
MARKING



TIP32C=Device code

XXXX=Code

Equivalent Circuit



MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-3	A
P_C	Collector Power Dissipation	2	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	62.5	℃/W
T_j,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

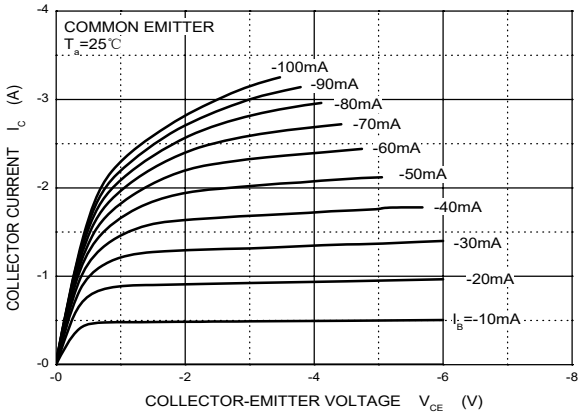
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -1mA, I_E=0	-10		V
Collector-emitter breakdown voltage *	$V_{CEO(sus)}$	I_C= -30mA, I_B=0	-10		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -1mA, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}=-100V, I_E=0		-200	μA
Collector cut-off current	I_{CEO}	V_{CE}= -60V, I_B= 0		-0.3	mA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0		-1	mA
DC current gain	$h_{FE(1)}$	V_{CE}= -4V, I_C=-1A	25		
	$h_{FE(2)}$	V_{CE}=-4 V, I_C=-3A	15	75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-3A, I_B=-0.375A		-1.2	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}=-4V, I_C=-3A		-1.8	V
Transition frequency	f_T	V_{CE}=-10V , I_C=-0.5A	3		MHz

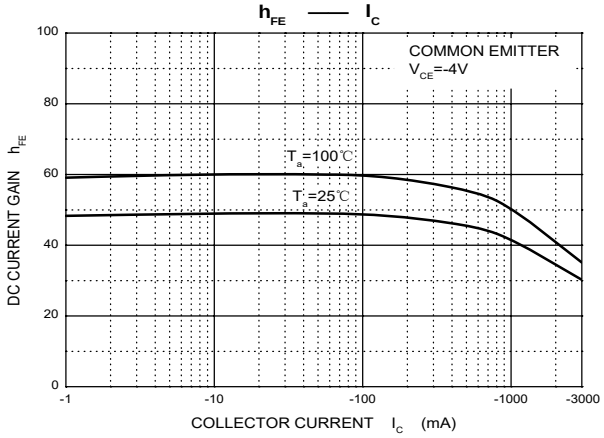
* Pulse Test: PW≤300μs, Duty Cycle≤2%.

Typical Characteristics

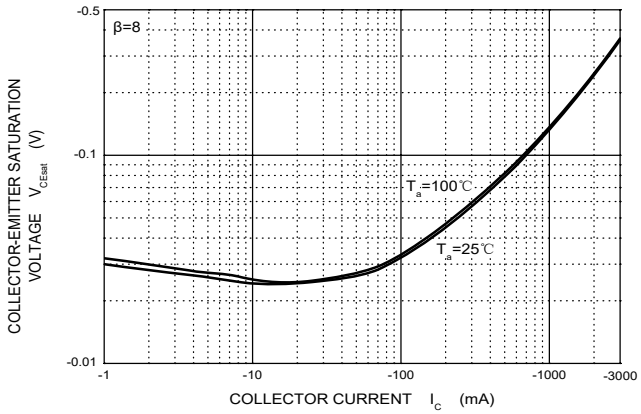
Static Characteristic



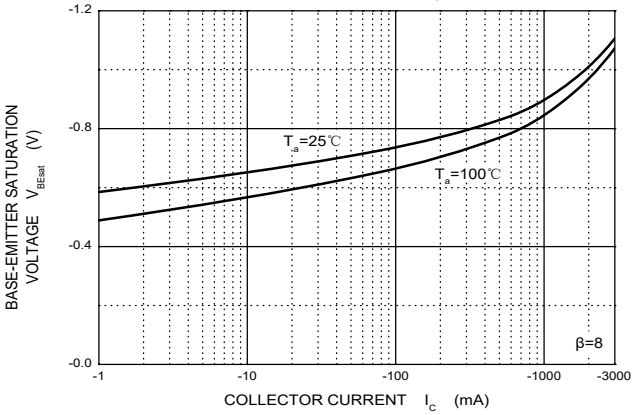
h_{FE} —— I_C



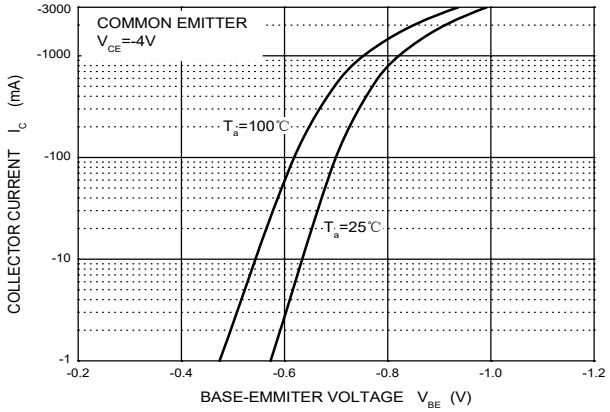
V_{CEsat} —— I_C



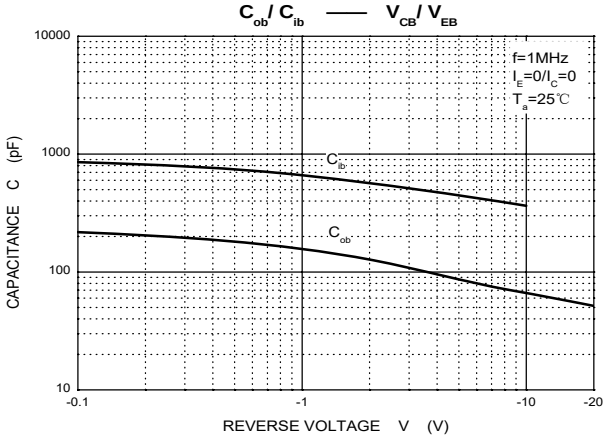
V_{BEsat} —— I_C



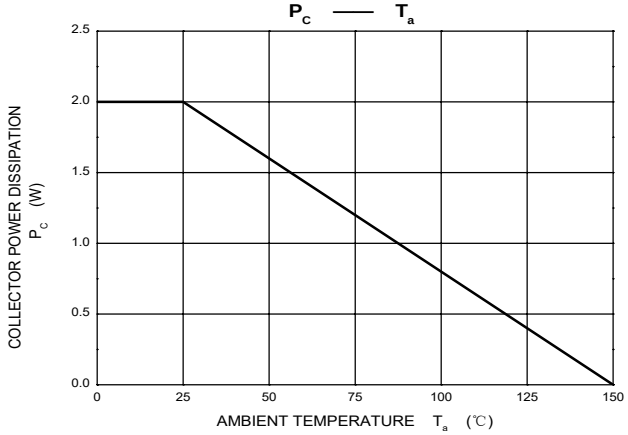
I_C —— V_{BE}



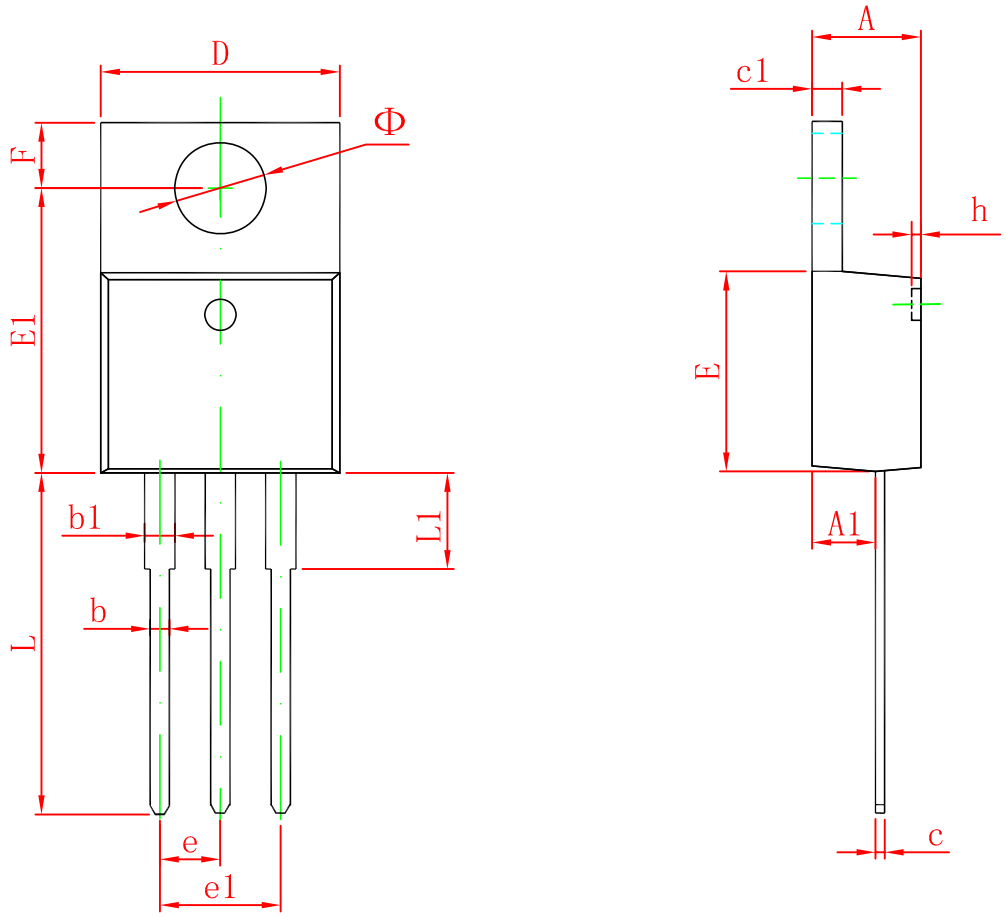
C_{ob} / C_{ib} —— V_{CB} / V_{EB}



P_C —— T_a



TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155