

BIPOLAR TRANSISTOR (PNP)

FEATURES

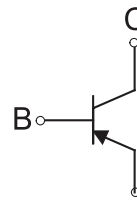
- Medium Power Linear Switching Applications

MECHANICAL DATA

- Case: TO-220
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 2.30grams (approximate)



TO-220



Equivalent Circuit

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value				Unit
		TIP32	TIP32A	TIP32B	TIP32C	
Collector-Base Voltage	V _{CBO}	-40	-60	-80	-100	V
Collector-Emitter Voltage	V _{CEO}	-40	-60	-80	-100	V
Emitter-Base Voltage	V _{EBO}	-5				V
Collector Current	I _C	-3				A
Collector Power Dissipation	P _C	2				W
Junction Temperature	T _J	150				°C
Storage Temperature Range	T _{stg}	-55~+150				°C
Thermal Resistance from Junction to Ambient	R _{θJA}	62.5				°C/W

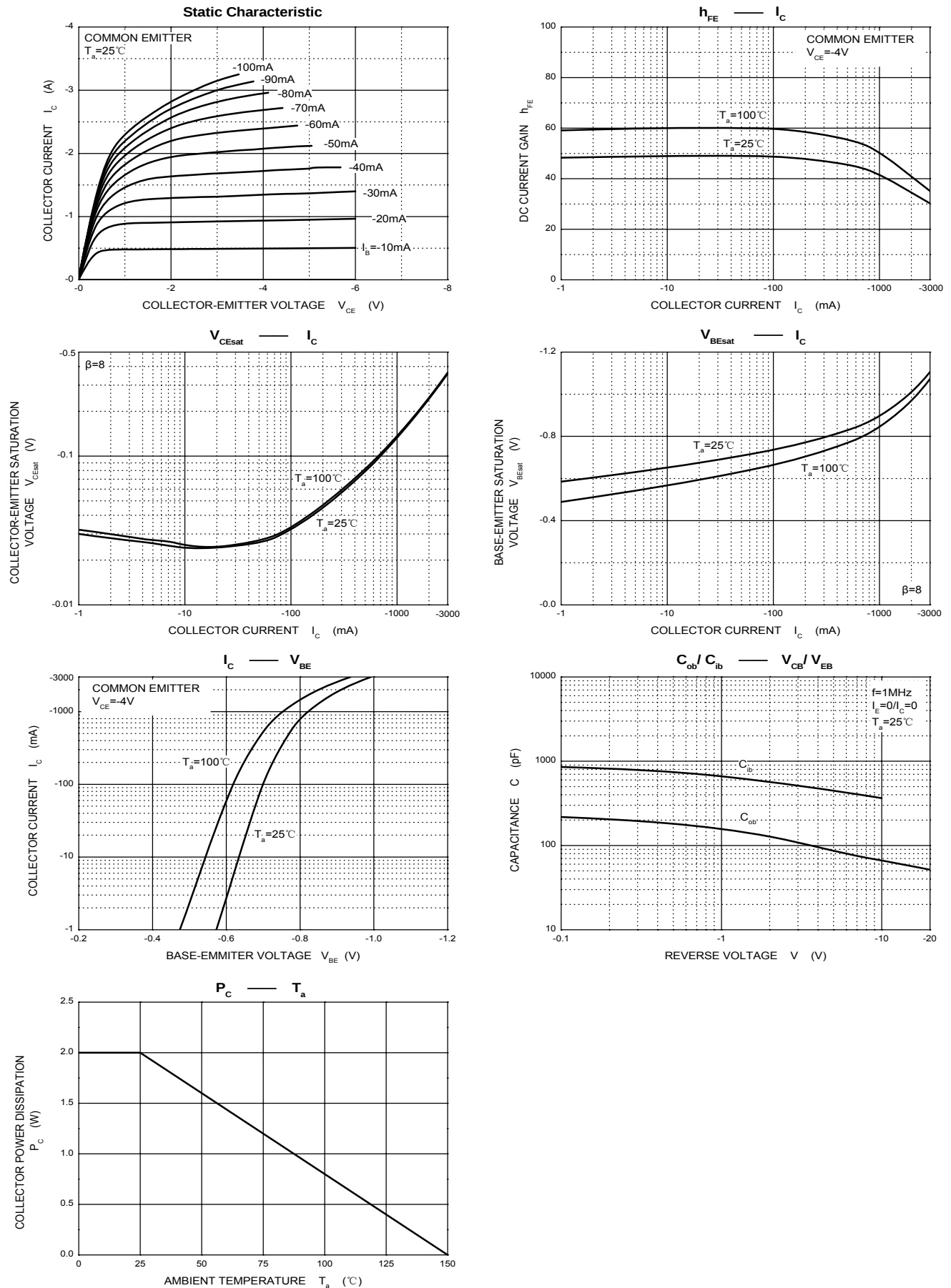
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

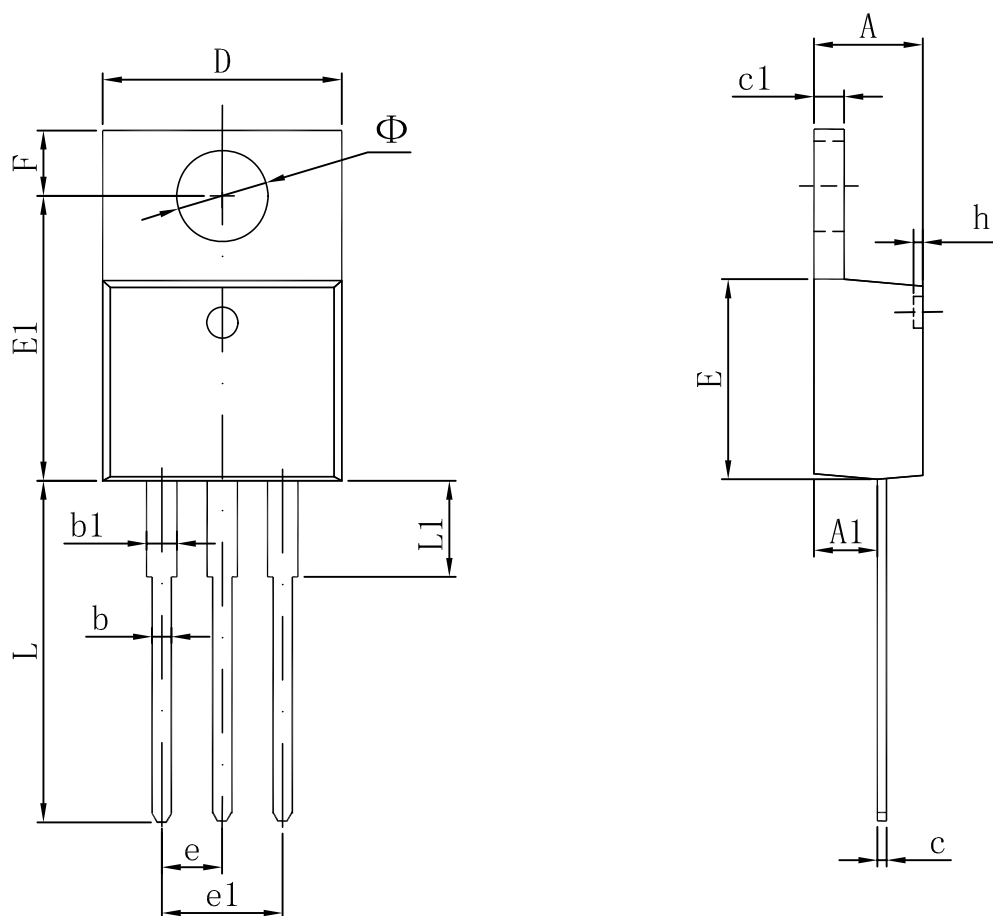
Parameter	Symbol	Min	Max	Unit	Test conditions
Collector-base breakdown voltage TIP32 TIP32A TIP32B TIP32C	V _{(BR)CBO}	-40 -60 -80 -100		V	I _C = -1mA, I _E = 0
Collector-emitter breakdown voltage TIP32 TIP32A TIP32B TIP32C	V _{CEO(sus)} *	-40 -60 -80 -100		V	I _C = -30mA, I _B = 0
Emitter-base breakdown voltage	V _{(BR)EBO}	-5		V	I _E = -1mA, I _C = 0
Collector cut-off current TIP32 TIP32A TIP32B TIP32C	I _{CBO}		-200	uA	V _{CB} = -40V, I _E = 0 V _{CB} = -60V, I _E = 0 V _{CB} = -80V, I _E = 0 V _{CB} = -100V, I _E = 0
Collector cut-off current TIP32&32A TIP32B&32C	I _{CEO}		-0.3	mA	V _{CE} = -30V, I _B = 0 V _{CE} = -60V, I _B = 0
Emitter cut-off current	I _{EBO}		-1	mA	V _{EB} = -5V, I _C = 0
DC current gain	h _{FE(1)}	25			V _{CE} = -4V, I _C = -1A
	h _{FE(2)}	15	75		V _{CE} = -4V, I _C = -3A
Collector-emitter saturation voltage	V _{CE(sat)}		-1.2	V	I _C = -3A, I _B = -0.375A
Base-emitter voltage	V _{BE(on)}		-1.8	V	V _{CE} = -4V, I _C = -3A
Transition frequency	f _T	3		MHz	V _{CE} = -10V, I _C = -0.5A

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

BIPOLAR TRANSISTOR (PNP)

Typical Characteristics



BIPOLAR TRANSISTOR (PNP)
TO-220 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