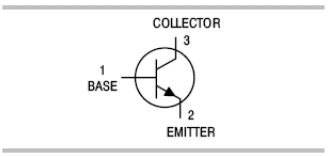
TIP41C

TO-220AB Bipolar Transistor(NPN)

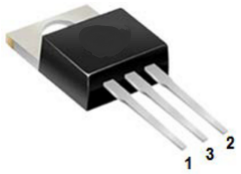
Features

- Epitaxial planar die construction
- Complementary to TIP42C



Mechanic al Data

- Case: TO-220AB
- Molding compound: UL flammability classification rating 94V-0
- Terminal s: Tin-plated; solderability per MIL-STD-202, Method 208



TO-220AB

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TIP41C	TO-220AB	50 pcs / Tube	TIP41C

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V_{CBO}	100	V
Collector-Emitter Breakdown Voltage	V_{CEO}	100	V
Emitter-Base Breakdown Voltage	V_{EBO}	5	V
Collector Current (Continuous)	I_C	6	A
Collector Current (Pulse)	I_{CM}	10	A
Base Current (Continuous)	I_B	2	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T_C = 25°C)	P_D	65	W
Power Dissipation (T_A = 25°C)	P_D	2	W
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	62.5	°C/W
Thermal Resistance Junction-to-Lead	$R_{\theta JL}$	1.67	°C/W
Thermal Resistance Junction-to-Case	$R_{\theta JC}$	2	°C/W
Junction Temperature	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

TIP41C

TO-220AB Bipolar Transistor(NPN)

Electrical Characteristics (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 1mA, I_E = 0	100	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 30mA, I_B = 0	100	-	-	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	-	-	0.4	mA
Collector cut-off current	I_{CEO}	V_{CE} = 60V, I_B = 0	-	-	0.7	mA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	-	1	mA
DC Current Gain	h_{FE}	V_{CE} = 4V, I_C = 0.3A	30	-	-	-
		V_{CE} = 4V, I_C = 3A	15	-	75	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 6A, I_B = 0.6A	-	-	1.5	V
Base-emitter Turn-on Voltage	$V_{BE(ON)}$	I_C = 6A, V_{CE} = 4V	-	-	2	V
Transition Frequency	f_T	I_C = 0.5A, V_{CE} = 10V f = 1MHz	3	-	-	MHZ

TIP41C

TO-220AB Bipolar Transistor(NPN)

Ratings and Characteristic Curves (@ T_A = 25℃ unless otherwise specified)

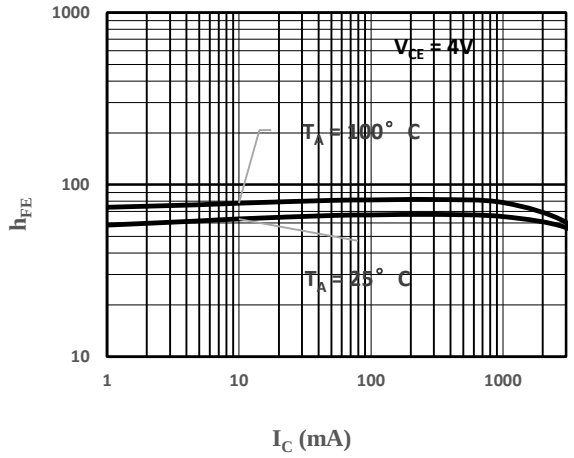


Fig 1 DC Current Gain as a Function of Collector Current

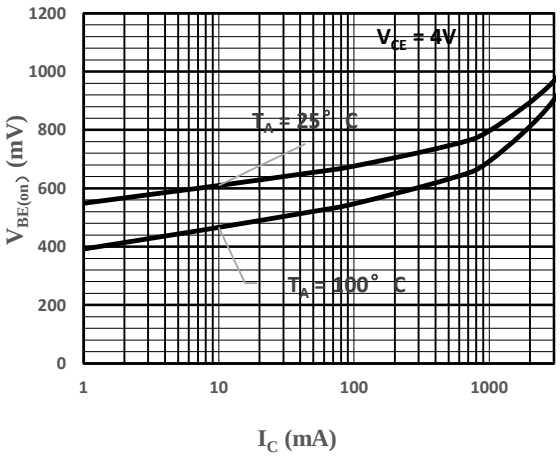


Fig 2 Base−Emitter Turn−on Voltage as a Function of Collector Current

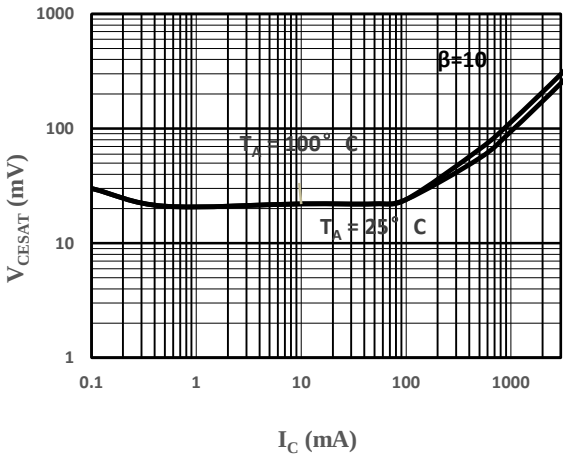


Fig 3 Collect-Emitter Saturation Voltage as a Function of Collector Current

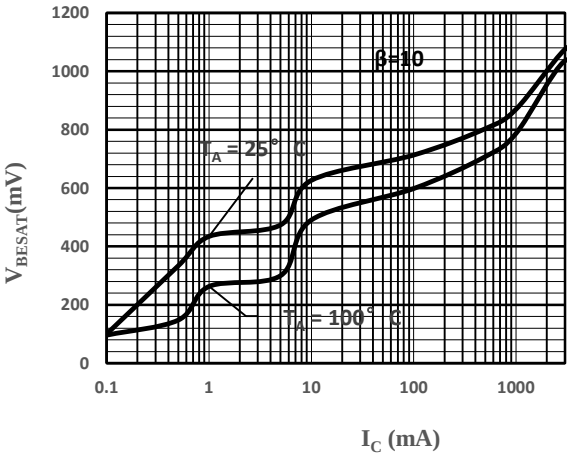
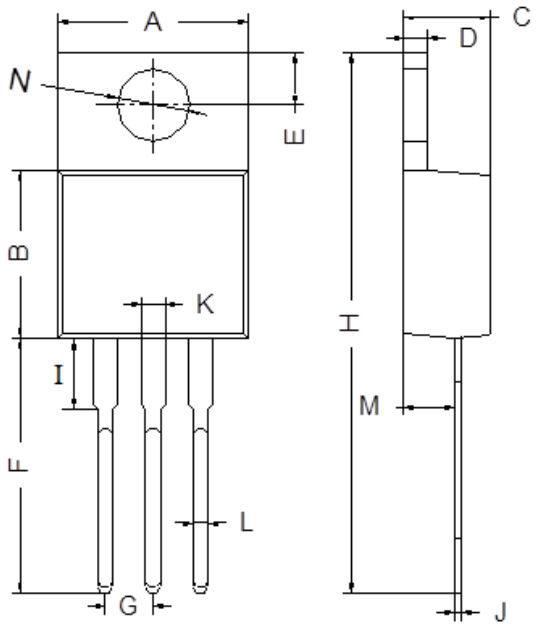


Fig 4 Base-Emitter Saturation Voltage as a Function of Collector Current

TIP41C

TO-220AB Bipolar Transistor(NPN)

Package Outline Dimensions (Unit: mm)



TO-220AB		
Dimension	**Min.**	**Max.**
A	9.80	10.30
B	8.70	9.10
C	4.37	4.77
D	1.07	1.47
E	2.64	2.84
F	13.14	13.74
G	2.44	2.64
H	28.03	28.83
I	3.50	4.00
J	0.28	0.48
K	1.22	1.32
L	0.71	0.91
M	2.40	2.60
N	3.76	3.96

Packge	Packing	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
TO-220	50pcs/Tube	560×150×50	1000	570×290×180	5000