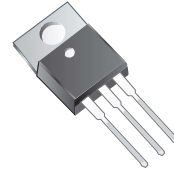


TIP41C



Epitaxial Planar Transistors NPN

RoHS Device
Halogen Free

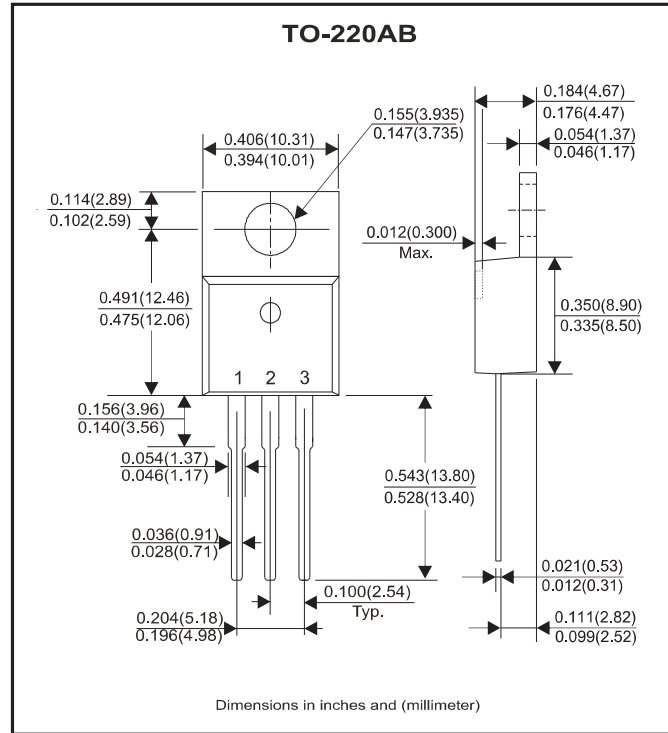
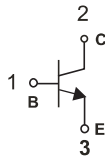


Features

- Low formed for surface mount application.
- Complementary to TIP42C.
- Straight Lead.

Diagram

1. BASE
2. COLLECTOR
3. EMITTER



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-base voltage	V _{CBO}	100	V
Collector-emitter voltage	V _{CEO}	100	V
Emitter-base voltage	V _{EBO}	5	V
Collector current-continuous	I _C	6	A
Collector power dissipation	P _C	2	W
Junction temperature	T _J	150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Thermal Characteristics

Parameter	Symbol	Typ	Max	Unit
Thermal resistance junction-ambient	R _{θJA}		62.5	°C/W
Thermal resistance junction-case	R _{θJC}		2	°C/W

Company reserves the right to improve product design, functions and reliability without notice.

Rev:1.0

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Max	Unit
Collector-base breakdown voltage	$I_C = 1\text{mA}$, $I_E = 0$	$V_{(BR)CBO}$	100		V
Collector-emitter breakdown voltage	$I_C = 30\text{mA}$, $I_B = 0$	$V_{(BR)CEO}$	100		V
Emitter-base breakdown voltage	$I_E = 1\text{mA}$, $I_C = 0$	$V_{(BR)EBO}$	5		V
Collector cut-off current	$V_{CB} = 100\text{V}$, $I_E = 0$	I_{CBO}		0.4	mA
Collector cut-off current	$V_{CB} = 60\text{V}$, $I_E = 0$	I_{CBO}		0.7	mA
Emitter cut-off current	$V_{EB} = 5\text{V}$, $I_C = 0$	I_{EBO}		1	mA
DC current gain	$V_{CE} = 4\text{V}$, $I_C = 0.3\text{A}$	$h_{FE(1)*}$	30		
	$V_{CE} = 4\text{V}$, $I_C = 3\text{A}$	$h_{FE(2)*}$	15	75	
Collector-emitter saturation voltage	$I_C = 6\text{A}$, $I_B = 0.6\text{A}$	$V_{CE(sat)*}$		1.5	V
Base-emitter voltage	$V_{CE} = 4\text{V}$, $I_C = 0.6\text{A}$	V_{BE}		2	V
Transition frequency	$V_{CE} = 10\text{V}$, $I_C = 0.5\text{A}$	f_T	3		MHz

Rating and Characteristics Curves

Fig 1 DC Current Gain as a Function of Collector Current

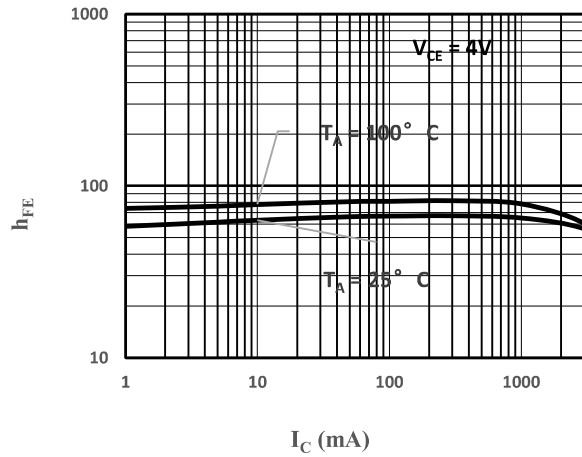


Fig 2 Base-Emitter Turn-on Voltage as a Function of Collector Current

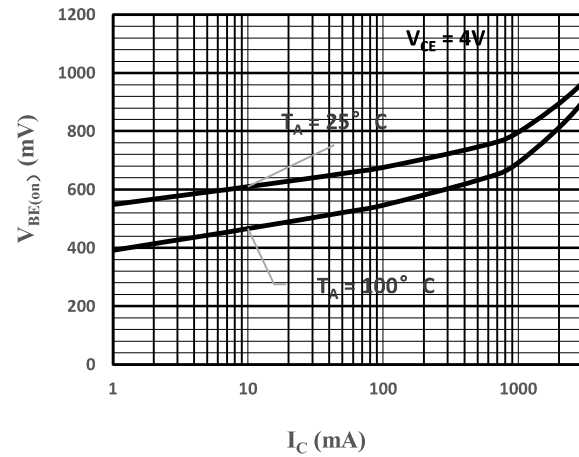


Fig 3 Collect-Emmitter Saturation Voltage as a Function of Collector Current

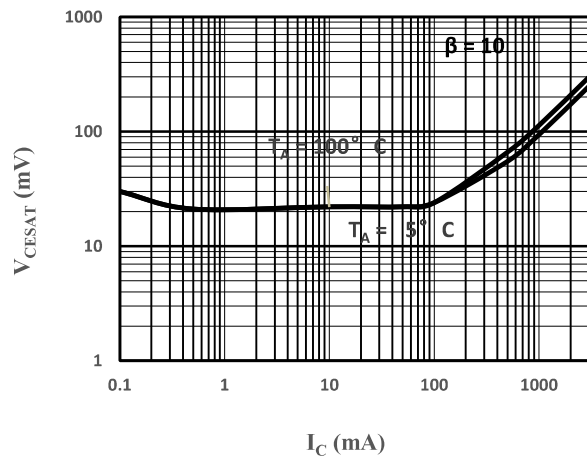
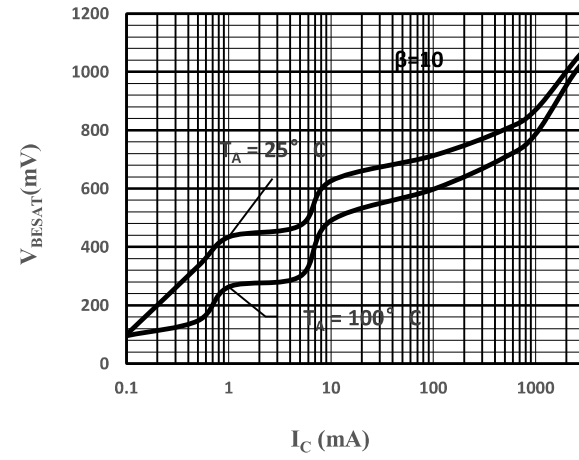
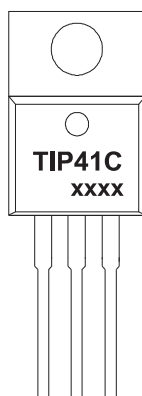


Fig 4 Base-Emmitter Saturation Voltage as a Function of Collector Current



Marking Code

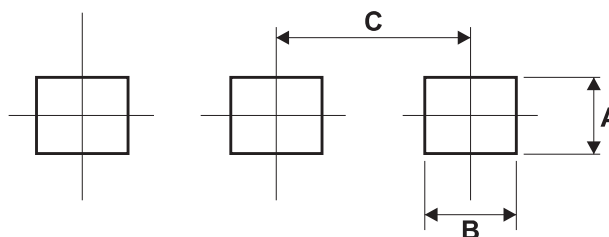
Part Number	Marking Code
TIP41C	TIP41C xxxx



TIP41C: Marking Code
xxxx: Control Code

Suggested PAD Layout

SIZE	TO-220AB	
	(mm)	(inch)
A	1.00	0.039
B	1.20	0.047
C	2.54	0.100



Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	Inner BOX (pcs)
TO-220AB	50	1,000