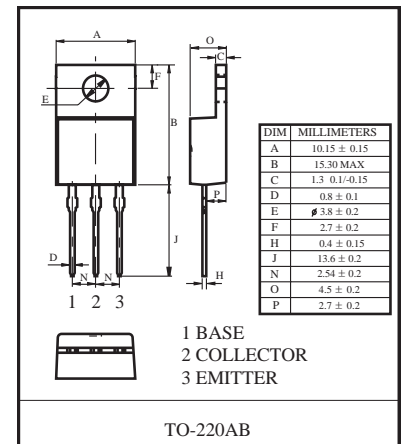


## TIP41/41A/41B/41C TRANSISTOR (NPN)

### FEATURES

Medium Power Linear Switching Applications



### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	TIP41	TIP41A	TIP41B	TIP41C	Unit
V <sub>CB0</sub>	Collector-Base Voltage	40	60	80	100	V
V <sub>CEO</sub>	Collector-Emitter Voltage	40	60	80	100	V
V <sub>EBO</sub>	Emitter-Base Voltage	5				V
I <sub>C</sub>	Collector Current -Continuous	6				A
P <sub>C</sub>	Collector Power Dissipation	2				W
T <sub>J</sub>	Junction Temperature	150				°C
T <sub>stg</sub>	Storage Temperature Range	-55to+150				°C

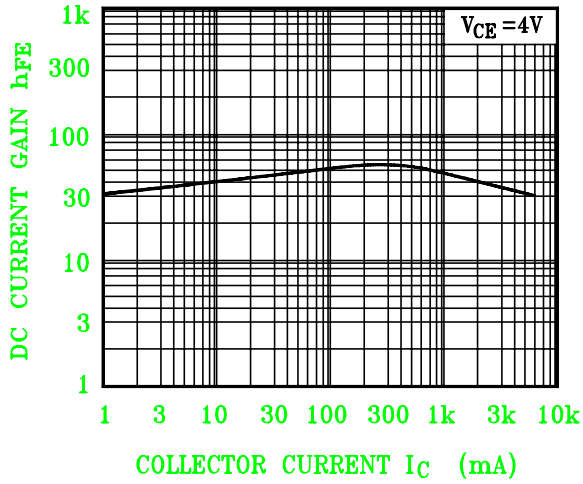
### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	TIP41 TIP41A TIP41B TIP41C	V(BR) <sub>CBO</sub> I <sub>C</sub> = 1mA, I <sub>E</sub> =0	40 60 80 100		V
Collector-emitter breakdown voltage	TIP41 TIP41A TIP41B TIP41C	V(BR) <sub>CEO</sub> I <sub>C</sub> = 30mA, I <sub>B</sub> =0	40 60 80 100		V
Emitter-base breakdown voltage		V(BR) <sub>EBO</sub> I <sub>E</sub> = 1mA, I <sub>C</sub> =0	5		V
Collector cut-off current	TIP41 TIP41A TIP41B TIP41C	I <sub>CBO</sub> V <sub>CB</sub> =40V, I <sub>E</sub> =0 V <sub>CB</sub> =60V, I <sub>E</sub> =0 V <sub>CB</sub> =80V, I <sub>E</sub> =0 V <sub>CB</sub> =100V, I <sub>E</sub> =0		0.4	mA
Collector cut-off current	TIP41/41A TIP41B/41C	I <sub>CEO</sub> V <sub>CE</sub> = 30V, I <sub>B</sub> = 0 V <sub>CE</sub> = 60V, I <sub>B</sub> = 0		0.7	mA
Emitter cut-off current		I <sub>EBO</sub> V <sub>EB</sub> =5V, I <sub>C</sub> =0		1	mA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = 4V, I <sub>C</sub> = 0.3A	30		
	h <sub>FE(2)</sub>	V <sub>CE</sub> =4 V, I <sub>C</sub> = 3A	15	75	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =6A, I <sub>B</sub> =0.6A		1.5	V
Base-emitter voltage	V <sub>BE(on)</sub>	V <sub>CE</sub> = 4V, I <sub>C</sub> =6A		2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.5A f =1MHz	3		MHz

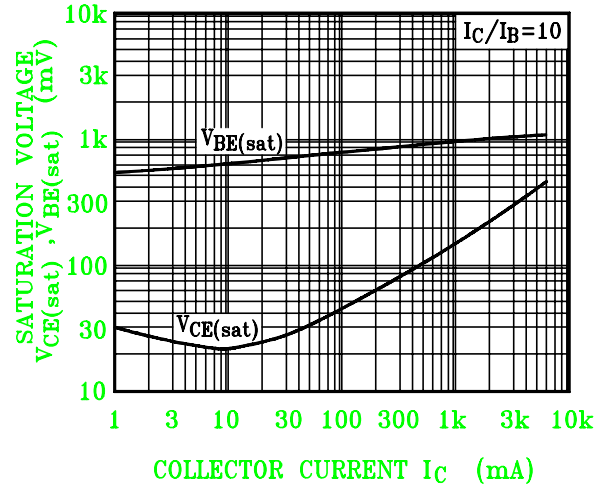


# TIP41/41A/41B/41C

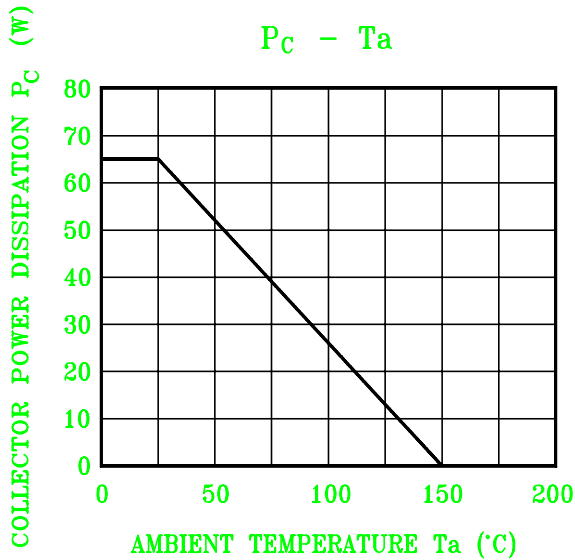
### $h_{FE} - I_C$



### $V_{CE(sat)}, V_{BE(sat)} - I_C$



### $P_C - T_a$



### SAFE OPERATING AREA

