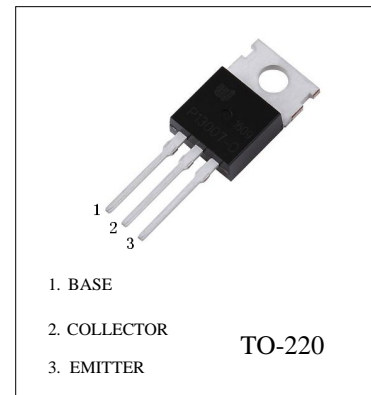


FEATURES

Medium Power Linear Switching Applications

TIP41/A/B/C (NPN)

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

Parameter	Symbol	TIP41	TIP41A	TIP41B	TIP41C	Unit
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 -Continuous	I _C	6				A
Collector Power Dissipation	PC	2				W
Junction Temperature	T _J	150				°C
Storage Temperature	T _{stg}	-55~150				°C

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage TIP41 TIP41A TIP41B TIP41C	V _{CBO}	I _C = 1mA, I _E =0	40 60 80 100		V
Collector-emitter breakdown voltage TIP41 TIP41A TIP41B TIP41C	V _{CEO}	I _C = 30mA, I _B =0	40 60 80 100		V
Emitter-base breakdown voltage	V _{EBO}	I _E = 1mA, I _C =0	5		V
Collector cut-off current TIP41 TIP41A TIP41B TIP41C	I _{CBO}	V _{CB} =40V, I _E =0 V _{CB} =60V, I _E =0 V _{CB} =80V, I _E =0 V _{CB} =100V, I _E =0		0.4	mA
Collector cut-off current TIP41/41A /41B /41C	I _{CEO}	V _{CE} = 30V, I _B = 0 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} (1)	V _{CE} = 4V, I _C = 0.3A	30		
	h _{FE} (2)	V _{CE} =4 V, I _C = 3A	15	75	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =6A, I _B =0.6A		1.5	V
Base-emitter voltage	V _{BE(on)}	V _{CE} = 4V, I _C =6A		2	V
Transition frequency	f _T	V _{CE} =10V, I _C =0.5A f =1MHz	3		MHZ

TIP41/A/B/C Typical Characteristics

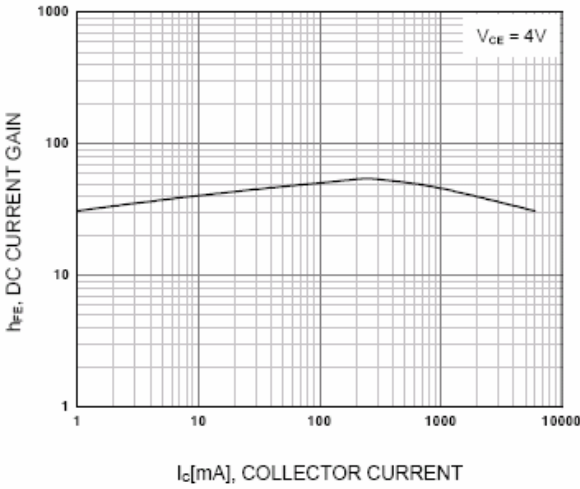


Figure 1. DC current Gain

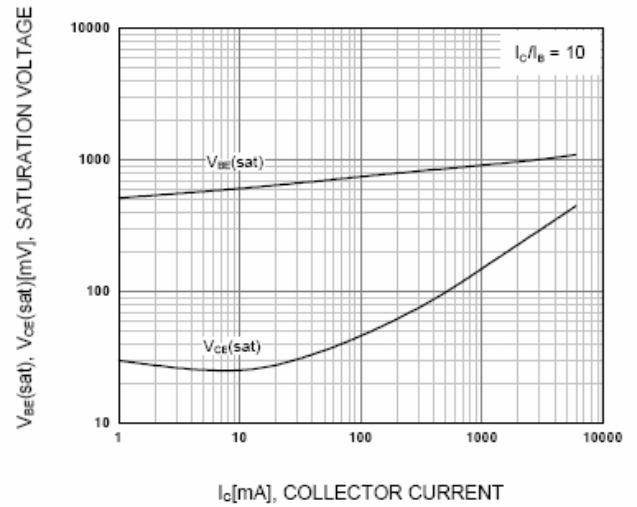


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

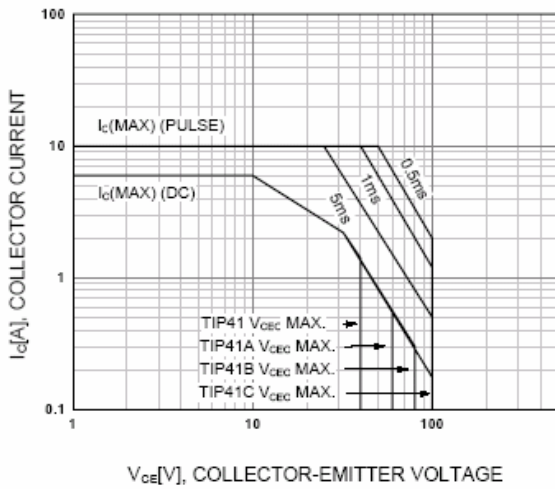


Figure 3. Safe Operating Area

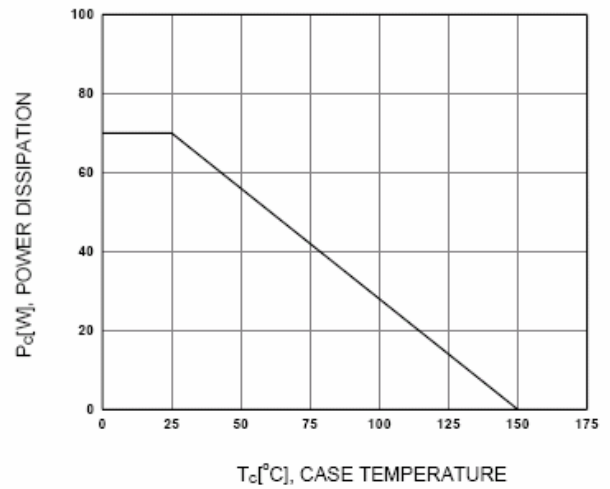


Figure 4. Power Derating