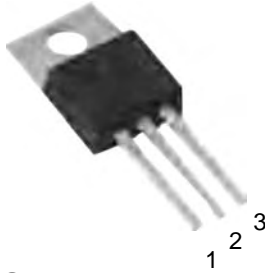
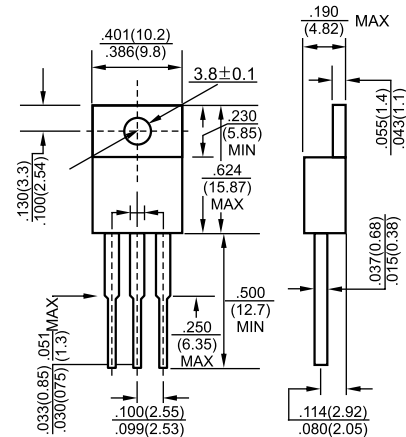


TO-220



1. BASE
2. COLLECTOR
3. EMITTER



Features

- ✧ Medium Power Linear Switching Applications

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

Dimensions in inches and (millimeters)

Symbol	Parameter	TIP41	TIP41A	TIP41B	TIP41C	Units
V _{CB0}	Collector-Base Voltage	40	60	80	100	V
V _{CEO}	Collector-Emitter Voltage	40	60	80	100	V
V _{EBO}	Emitter-Base Voltage	5				V
I _C	Collector Current -Continuous	6				A
P _C	Collector Power Dissipation	2				W
T _J	Junction Temperature	150				°C
T _{stg}	Storage Temperature Range	-55to+150				°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	TIP41	V _{(BR)CBO} I _C = 1mA, I _E =0	40		V
	TIP41A		60		
	TIP41B		80		
	TIP41C		100		
Collector-emitter breakdown voltage	TIP41	V _{(BR)CEO} I _C = 30mA, I _B =0	40		V
	TIP41A		60		
	TIP41B		80		
	TIP41C		100		
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 1mA, I _C =0	5		V
Collector cut-off current	TIP41	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
	TIP41A				
	TIP41B				
	TIP41C				
Collector cut-off current	TIP41/41A TIP41B/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

Typical Characteristics

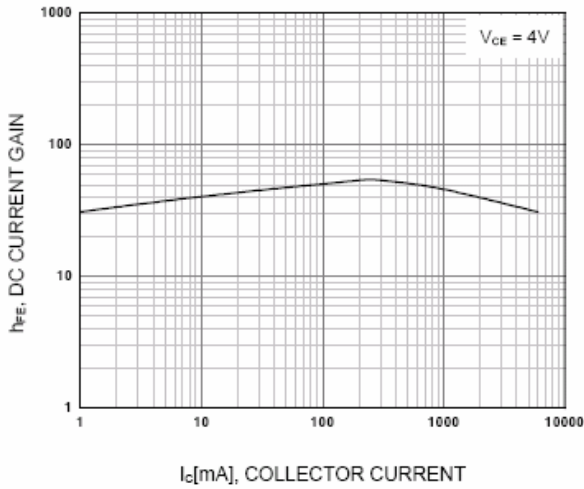


Figure 1. DC current Gain

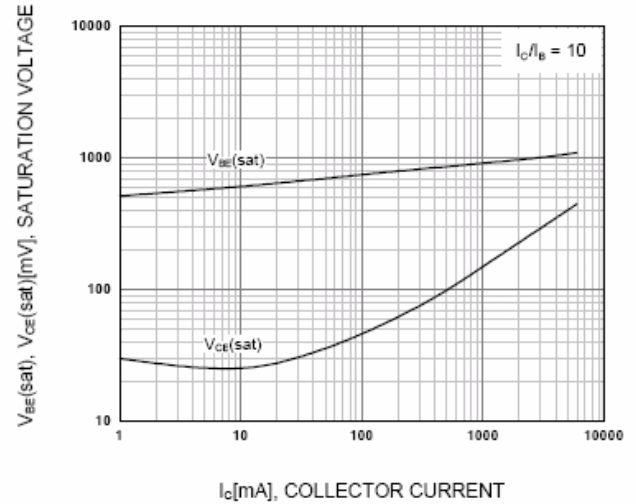


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

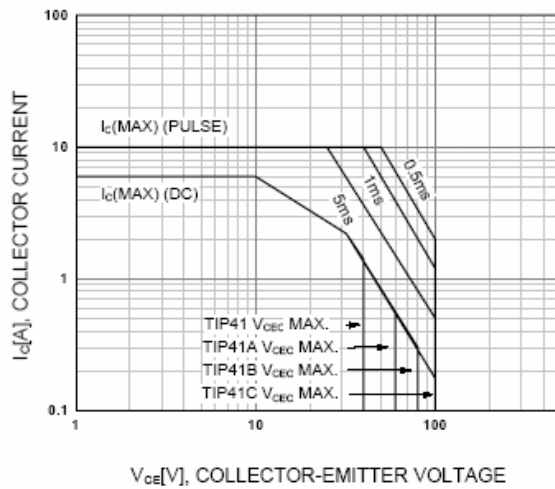


Figure 3. Safe Operating Area

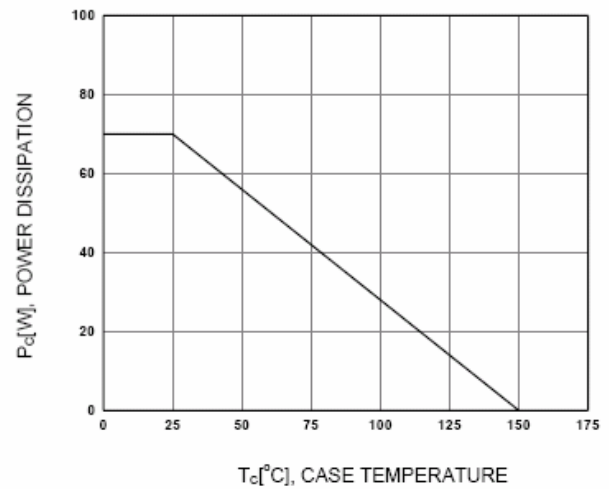


Figure 4. Power Derating