

Silicon NPN Power Transistors

TIP41/41A/41B/41C

DESCRIPTION

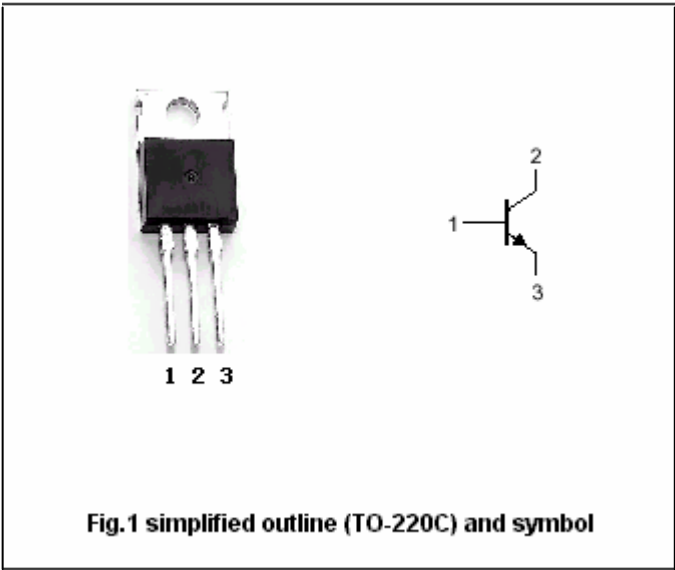
- With TO-220C package
- Complement to type TIP42/42A/42B/42C

APPLICATIONS

- For medium power linear switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



Absolute maximum ratings(Tc=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	TIP41	40	V
		TIP41A	60	
		TIP41B	80	
		TIP41C	100	
V _{CEO}	Collector-emitter voltage	TIP41	40	V
		TIP41A	60	
		TIP41B	80	
		TIP41C	100	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current (DC)		6	A
I _{CM}	Collector current-Pulse		10	A
I _B	Base current		2	A
P _C	Collector power dissipation	T _C =25	65	W
		T _a =25	2	
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-65~150	

Silicon NPN Power Transistors

TIP41/41A/41B/41C

CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	TIP41	$I_C=30mA; I_B=0$	40			V
		TIP41A		60			
		TIP41B		80			
		TIP41C		100			
V_{CEsat}	Collector-emitter saturation voltage		$I_C=6A; I_B=0.6A$			1.5	V
V_{BE}	Base-emitter on voltage		$I_C=6A; V_{CE}=4V$			2.0	V
I_{CES}	Collector cut-off current	TIP41	$V_{CE}=40V; V_{EB}=0$			0.4	mA
		TIP41A	$V_{CE}=60V; V_{EB}=0$				
		TIP41B	$V_{CE}=80V; V_{EB}=0$				
		TIP41C	$V_{CE}=100V; V_{EB}=0$				
I_{CEO}	Collector cut-off current	TIP41/41A	$V_{CE}=30V; I_B=0$			0.7	mA
		TIP41B/41C	$V_{CE}=60V; I_B=0$				
I_{EBO}	Emitter cut-off current		$V_{EB}=5V; I_C=0$			1.0	mA
h_{FE-1}	DC current gain		$I_C=0.3A; V_{CE}=4V$	30			
h_{FE-2}	DC current gain		$I_C=3A; V_{CE}=4V$	15		75	
f_T	Transiton frequency		$I_C=0.5A; V_{CE}=10V$	3			MHz

Silicon NPN Power Transistors

TIP41/41A/41B/41C

PACKAGE OUTLINE

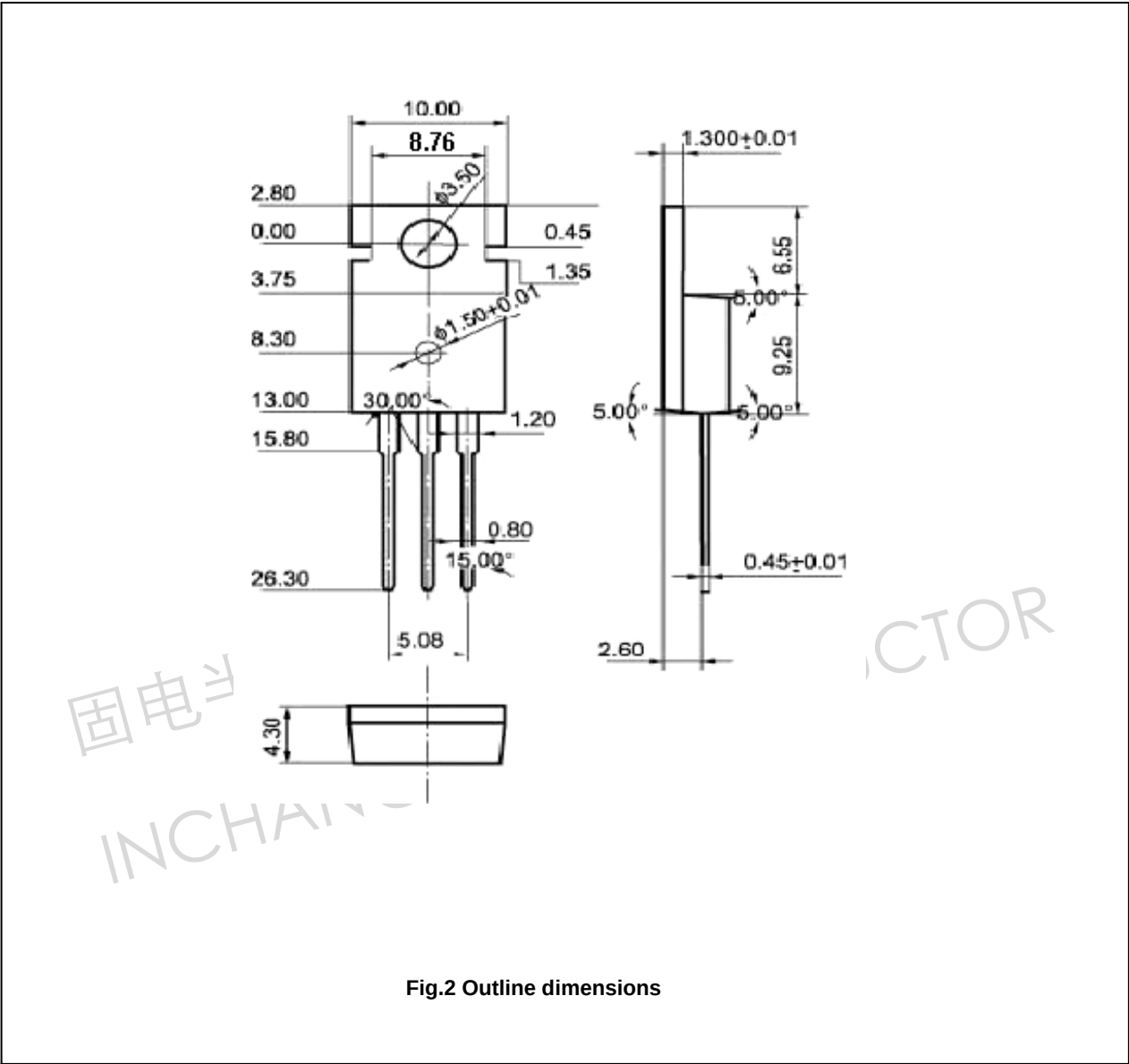


Fig.2 Outline dimensions

Silicon NPN Power Transistors

TIP41/41A/41B/41C

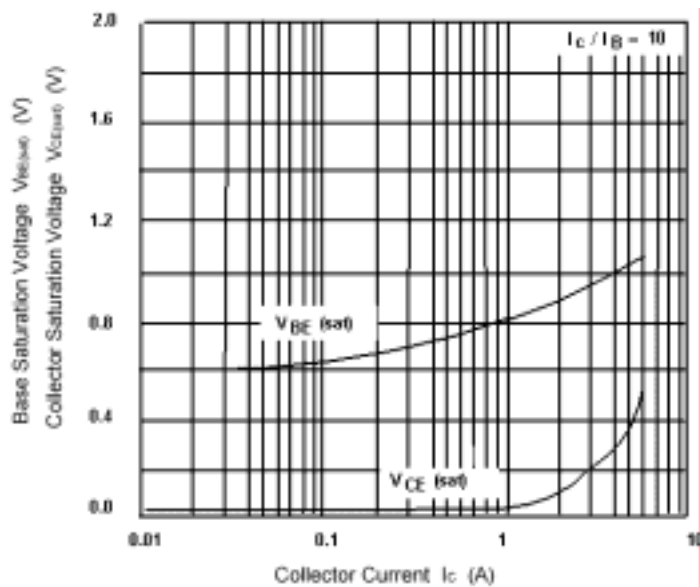


Fig.3 Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

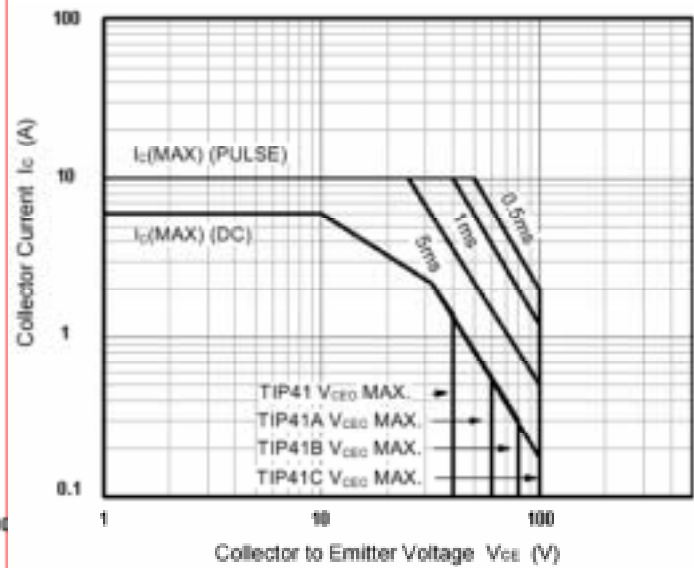


Fig.4 Safe Operating Area

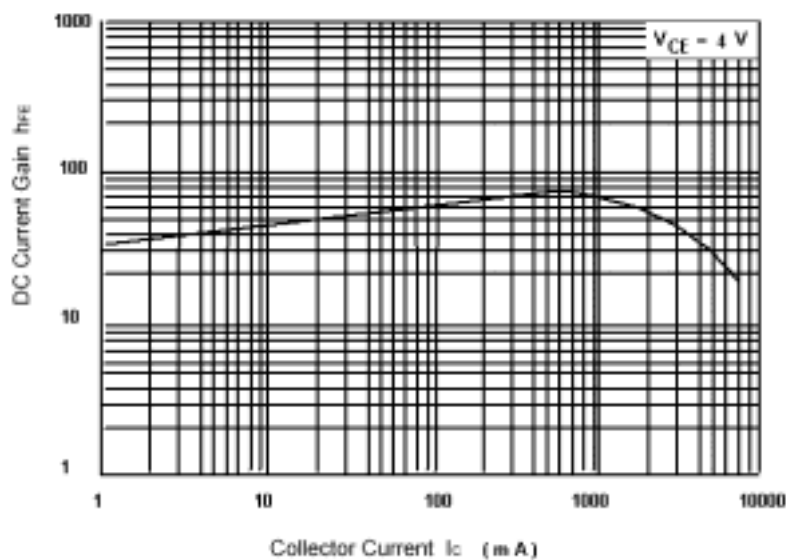


Fig.5 DC current Gain