

Silicon PNP Power Transistors

TIP32/32A/32B/32C

DESCRIPTION

- With TO-220C package
- Complement to type TIP31/31A/31B/31C

APPLICATIONS

- Medium power linear and switching applications

PINNING

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

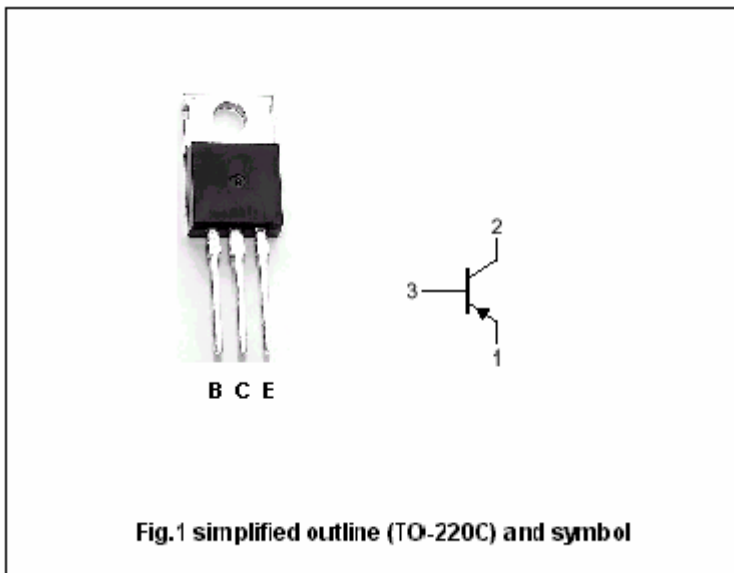


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V _{CBO}	Collector-base voltage	Open emitter	TIP32	-40	V
			TIP32A	-60	
			TIP32B	-80	
			TIP32C	-100	
V _{CEO}	Collector-emitter voltage	Open base	TIP32	-40	V
			TIP32A	-60	
			TIP32B	-80	
			TIP32C	-100	
V _{EBO}	Emitter-base voltage	Open collector	-5	V	
I _C	Collector current (DC)		-3	A	
I _{CM}	Collector current-Pulse		-5	A	
I _B	Base current		-1	A	
P _C	Collector power dissipation	T _C =25	40	W	
		T _a =25	2		
T _j	Junction temperature		150		
T _{stg}	Storage temperature		-65~150		

Silicon PNP Power Transistors

TIP32/32A/32B/32C

CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEO(SUS)}	Collector-emitter sustaining voltage	TIP32	-40			V	
		TIP32A	-60				
		TIP32B	-80				
		TIP32C	-100				
		I _C =-30mA; I _B =0					
V _{CEsat}	Collector-emitter saturation voltage	I _C =-3A; I _B =-0.375A			-1.2	V	
V _{BE}	Base-emitter on voltage	I _C =-3A; V _{CE} =-4V			-1.8	V	
I _{CES}	Collector cut-off current	TIP32	V _{CE} =-40V; V _{EB} =0			-0.2	mA
		TIP32A	V _{CE} =-60V; V _{EB} =0				
		TIP32B	V _{CE} =-80V; V _{EB} =0				
		TIP32C	V _{CE} =-100V; V _{EB} =0				
I _{CEO}	Collector cut-off current	TIP32/32A	V _{CE} =-30V; I _B =0			-0.3	mA
		TIP32B/32C	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 =-1A; V _{CE} =-4V	25				
h _{FE-2}	DC current gain	I _C =-3A; V _{CE} =-4V	10		50		
f _T	Transiton frequency	I _C =-0.5A; V _{CE} =-10V	3			MHz	

Silicon PNP Power Transistors

TIP32/32A/32B/32C

PACKAGE OUTLINE

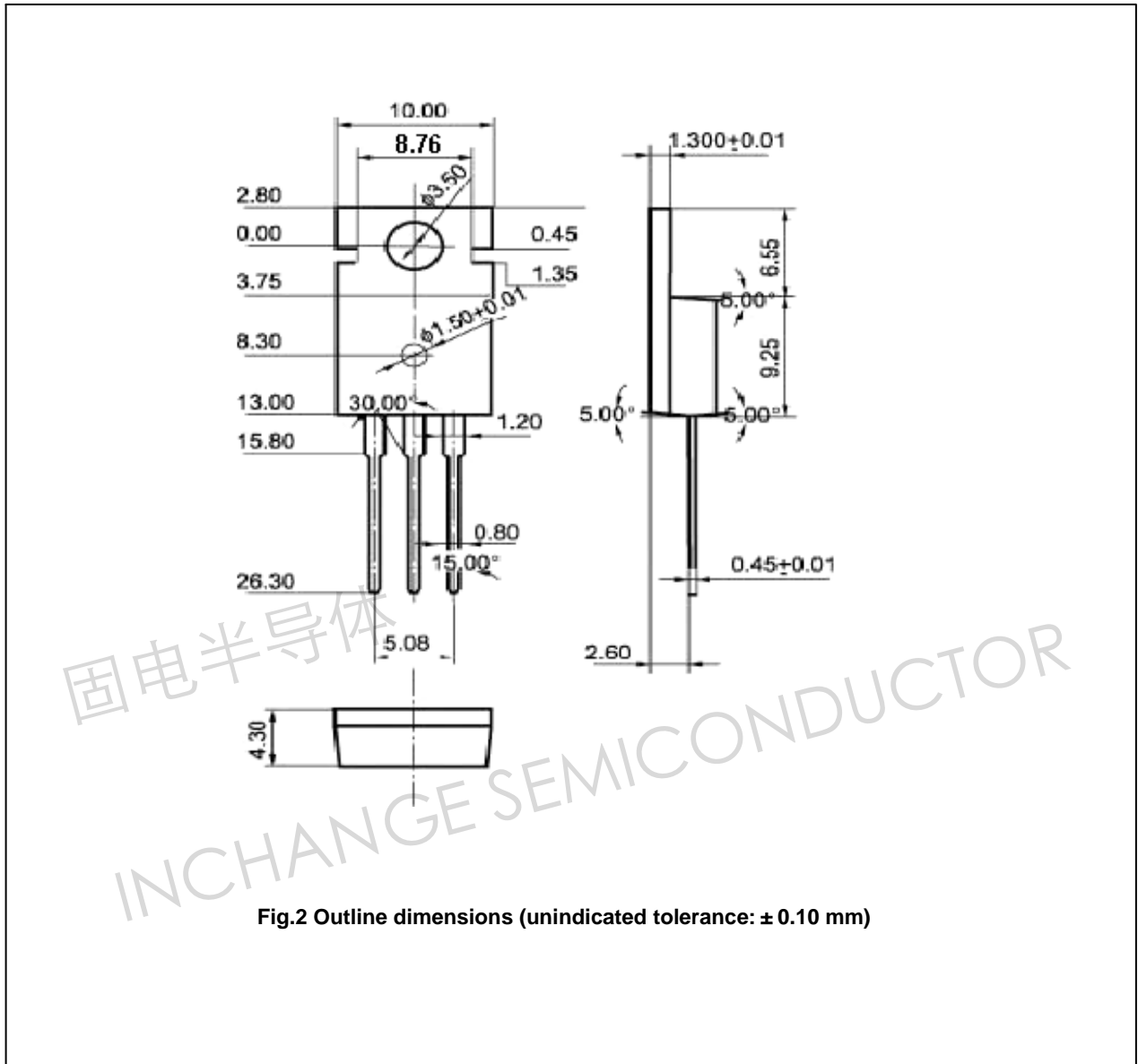


Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)

Silicon PNP Power Transistors

TIP32/32A/32B/32C

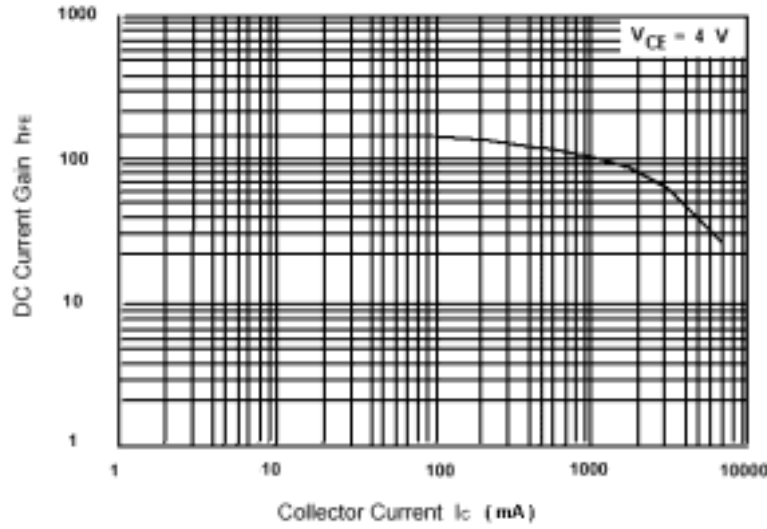


Fig.3 DC current Gain

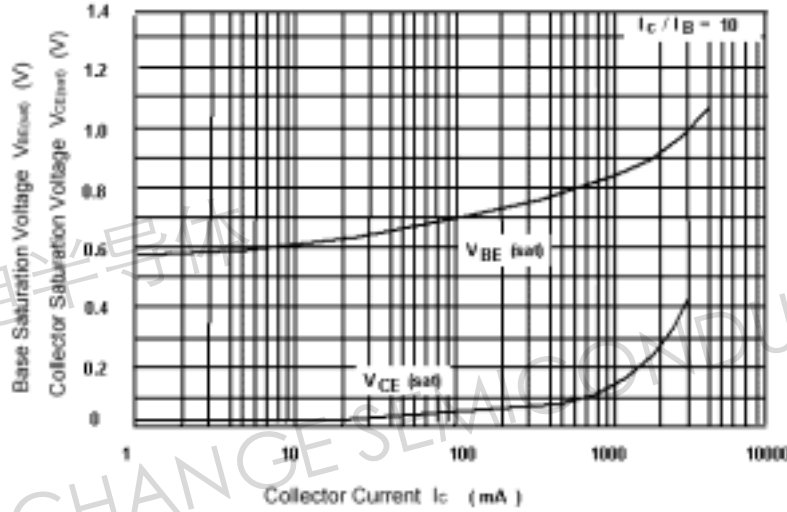


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

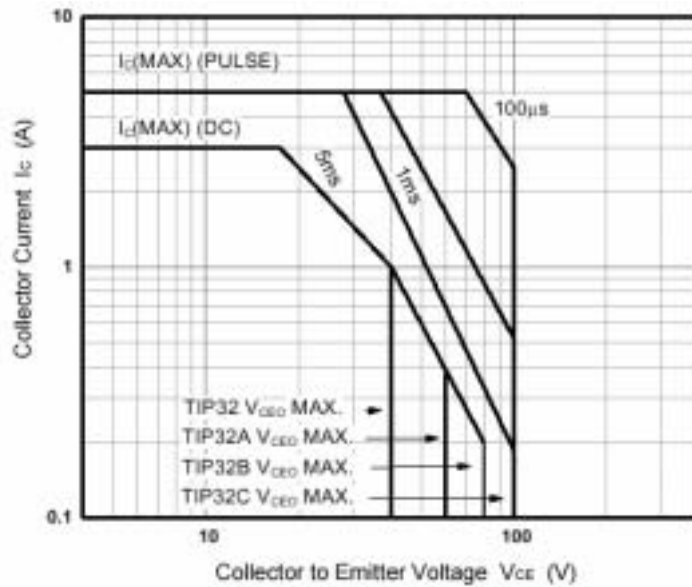


Fig.5 Safe Operating Area