

Silicon PNP Power Transistors

TIP32C

DESCRIPTION

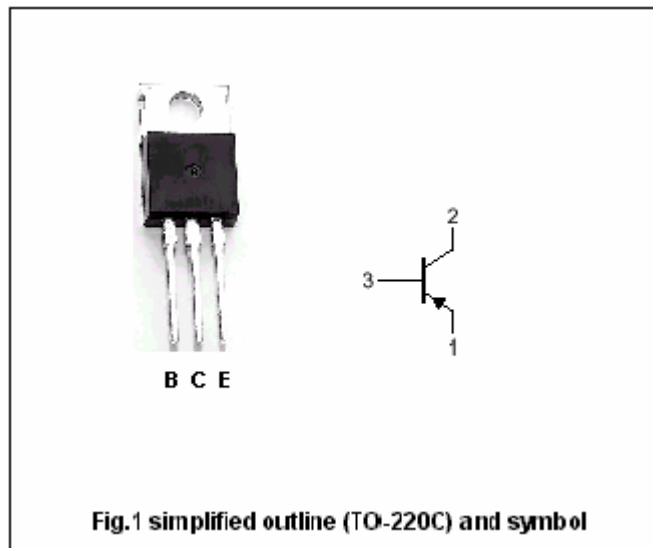
- With TO-220C package
- Complement to type TIP31C

APPLICATIONS

- Medium power linear and switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-100	V
V_{CEO}	Collector-emitter voltage	Open base	-100	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-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	
$R_{th\ j-case}$	Thermal resistance ,junction to case		3.125	/W
$R_{th\ j-amb}$	Thermal resistance ,junction to ambient		62.5	/W
Solderability		230±5 ; 3±0.5s	≥95% term covered by new solder	
Resistance to soldering heat		260±5 ; 10±0.5s	No remarkable damage	

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C = -30mA$; $I_B = 0$	-100			V
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	$V_{CE} = -100V$; $V_{EB} = 0$			-0.2	mA
I_{CEO}	Collector cut-off current	$V_{CE} = -60V$; $I_B = 0$			-0.3	mA
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

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PACKAGE OUTLINE

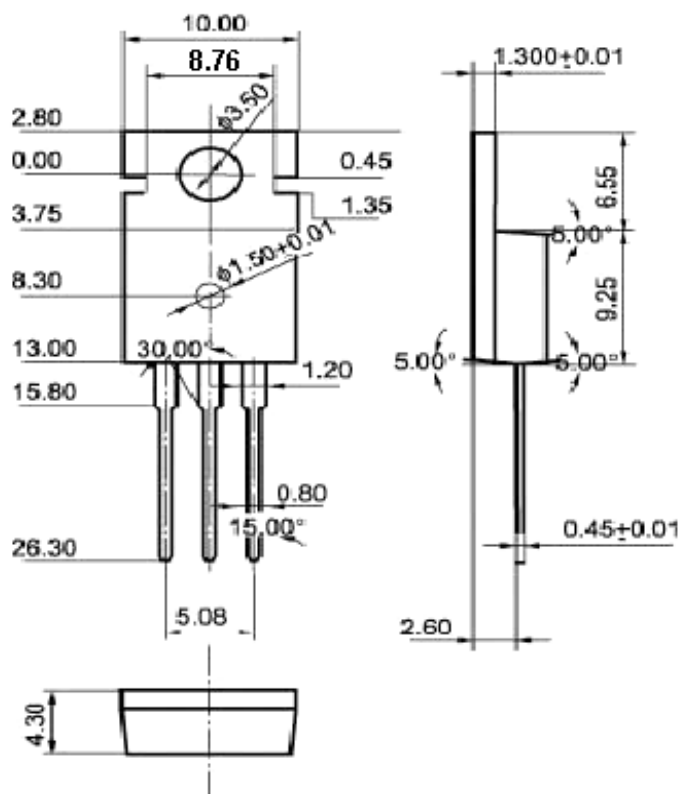


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)

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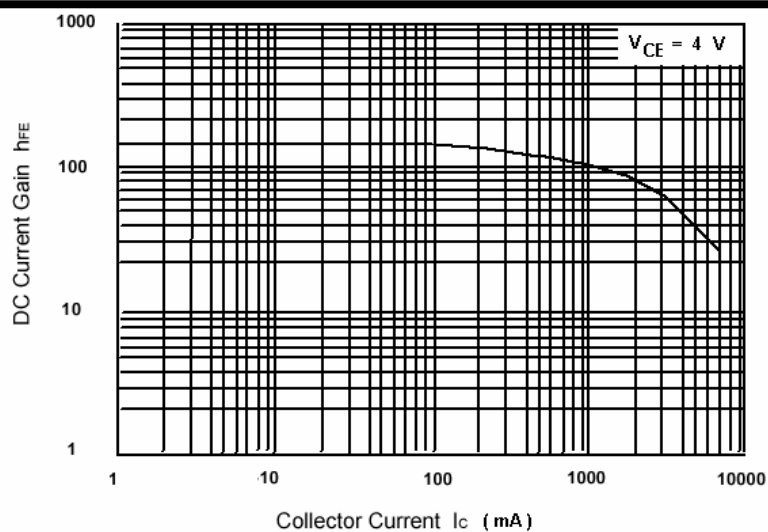


Fig.3 DC current Gain

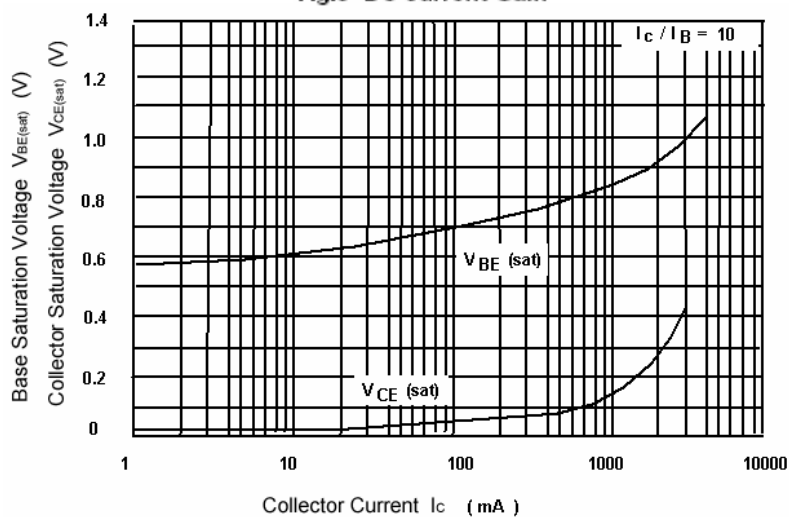
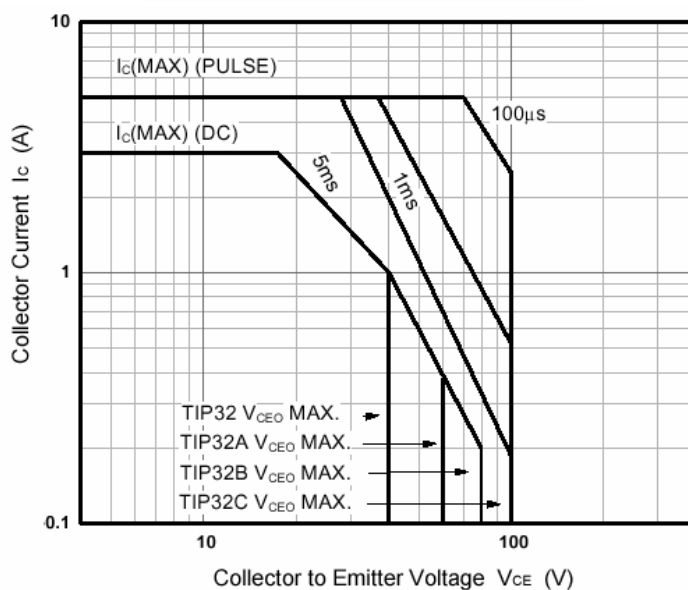
Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

Fig.5 Safe Operating Area