

DESCRIPTION

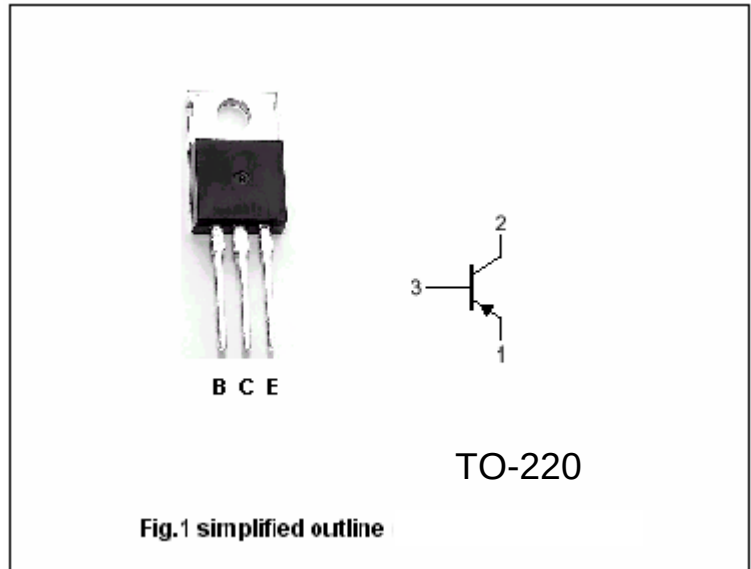
- With TO-220 package
- Complement to type TIP31/31A/31B/31C

APPLICATIONS

- Medium power linear and switching applications

PINNING

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



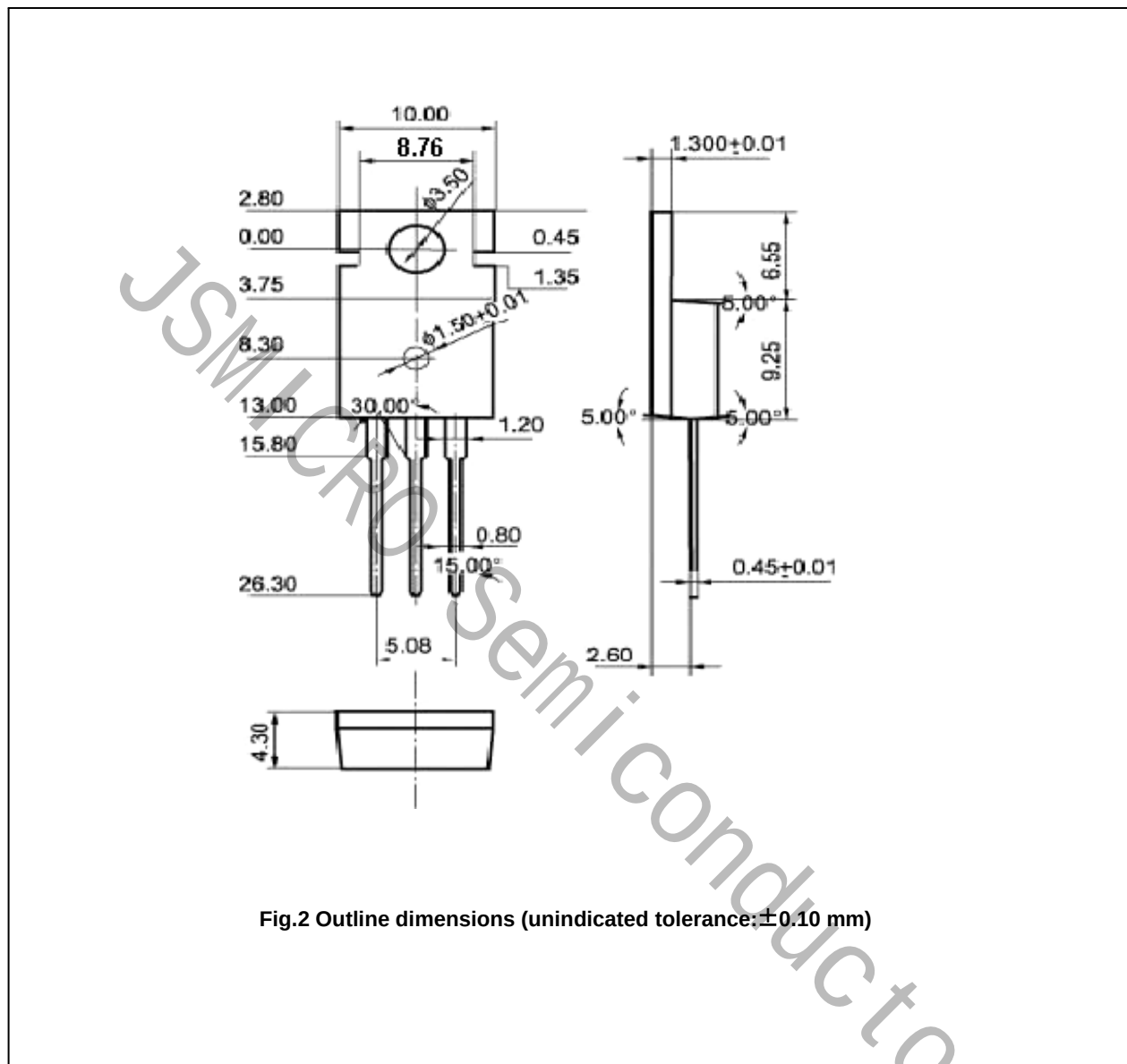
Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	TIP32	Open emitter	-40	V
		TIP32A		-60	
		TIP32B		-80	
		TIP32C		-100	
V_{CEO}	Collector-emitter voltage	TIP32	Open base	-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		$T_C=25^{\circ}\text{C}$	40	W
			$T_a=25^{\circ}\text{C}$	2	
T_j	Junction temperature			150	$^{\circ}\text{C}$
T_{stg}	Storage temperature			-65~150	$^{\circ}\text{C}$

CHARACTERISTICS
 $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	TIP32	$I_C=-30\text{mA}; I_B=0$	-40			V
		TIP32A		-60			
		TIP32B		-80			
		TIP32C		-100			
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

PACKAGE OUTLINE



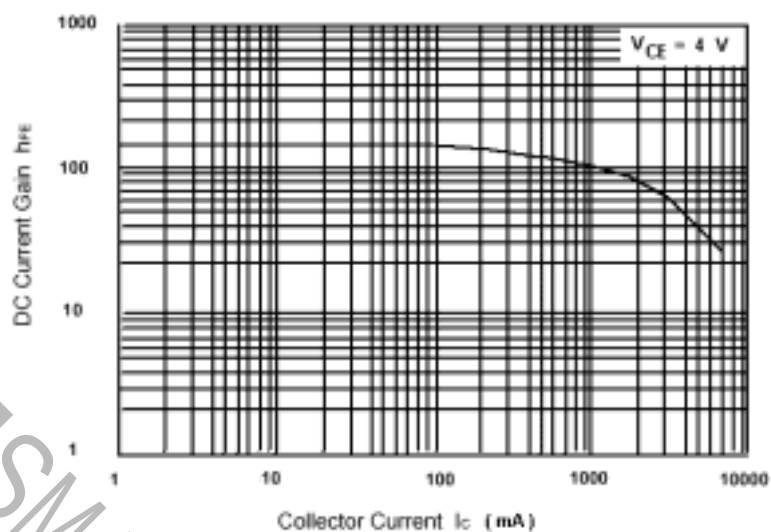


Fig.3 DC current Gain

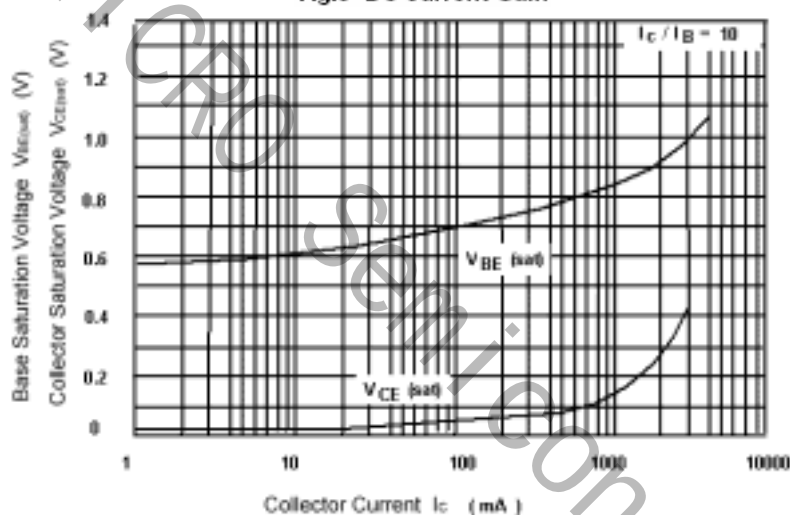


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

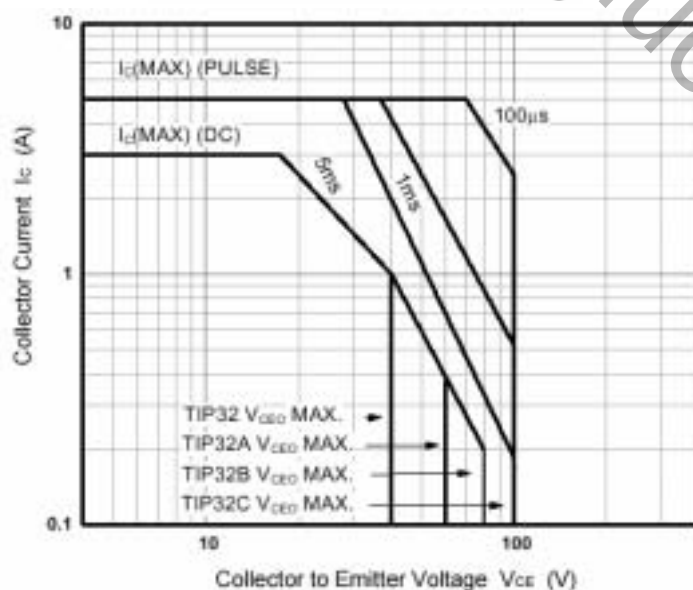


Fig.5 Safe Operating Area