

Silicon NPN Power Transistors

2SC4448

DESCRIPTION

- With TO-220F package
- High voltage ,high frequency

APPLICATIONS

- Chroma output applications for HDTV
- Video output applications for high-resolution display

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

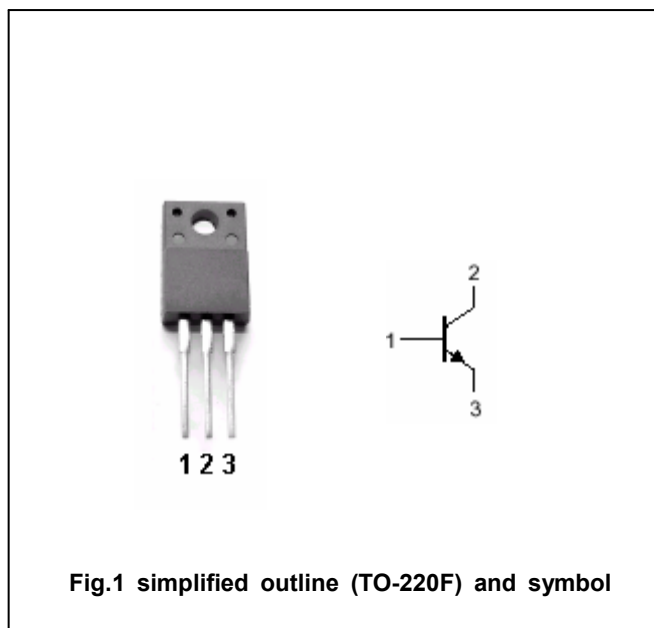


Fig.1 simplified outline (TO-220F) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	250	V
V_{CEO}	Collector-emitter voltage	Open base	250	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		150	mA
I_{CM}	Collector current-peak		300	mA
I_B	Base current		50	mA
P_C	Collector dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_c=25^\circ\text{C}$	10	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =50mA ; I _B =5mA			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =50mA ; I _B =5mA			1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =200V; I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μA
h _{FE-1}	DC current gain	I _C =10mA ; V _{CE} =10V	40		200	
h _{FE-2}	DC current gain	I _C =100mA ; V _{CE} =10V	20			
f _T	Transition frequency	I _C =40mA ; V _{CE} =10V		240		MHz
C _{OB}	Collector output capacitance	f=1MHz; V _{CB} =30V		3.3		pF

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PACKAGE OUTLINE

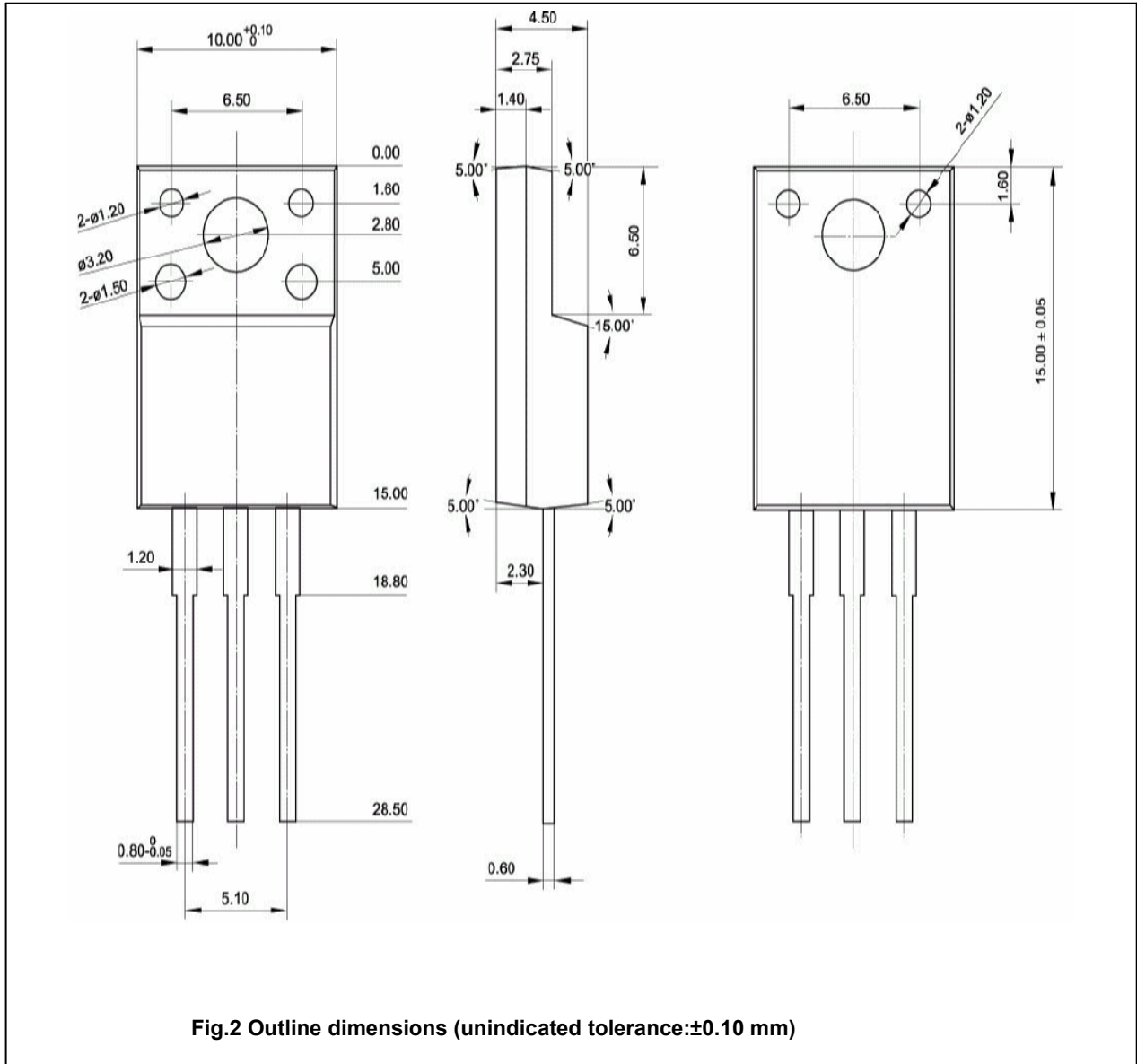


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)

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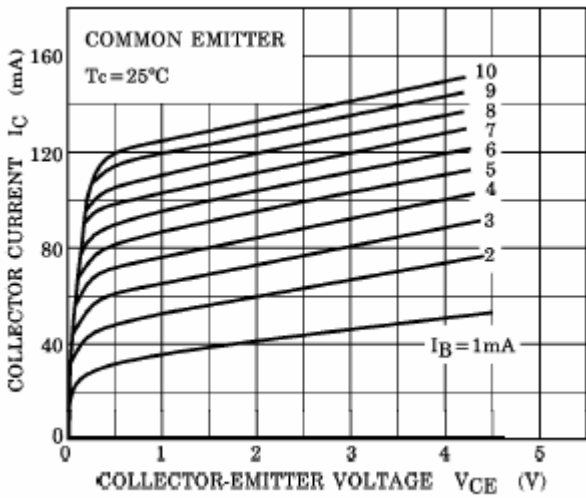


Fig.3 Static Characteristic

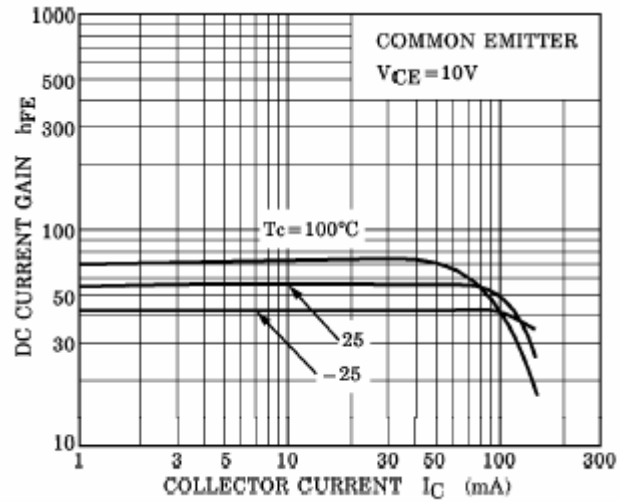


Fig.4 DC current Gain

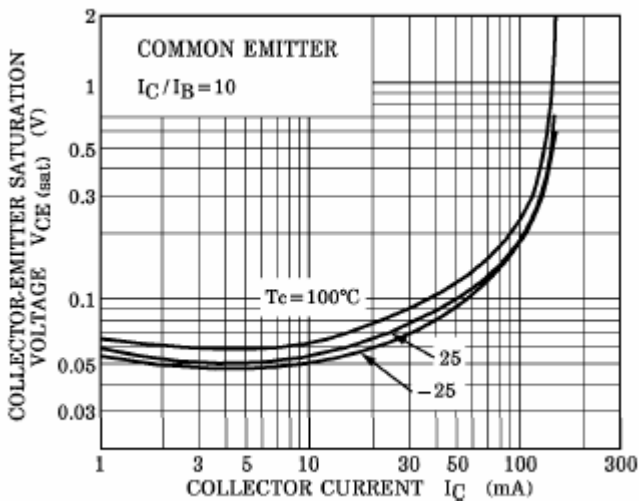


Fig.5 Collector-Emitter Saturation Voltage

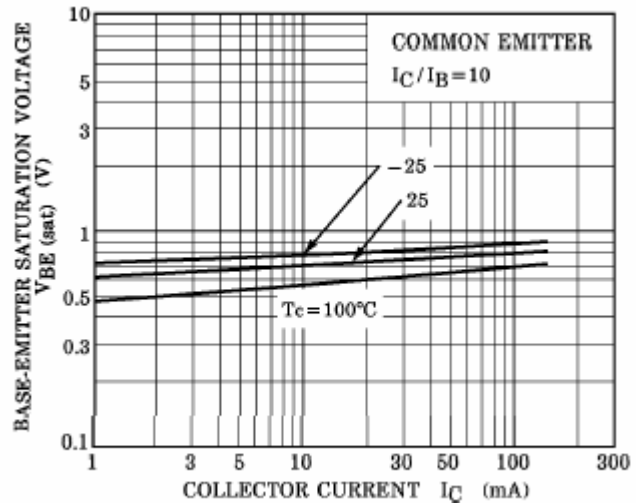


Fig.6 Base-Emitter Saturation Voltage

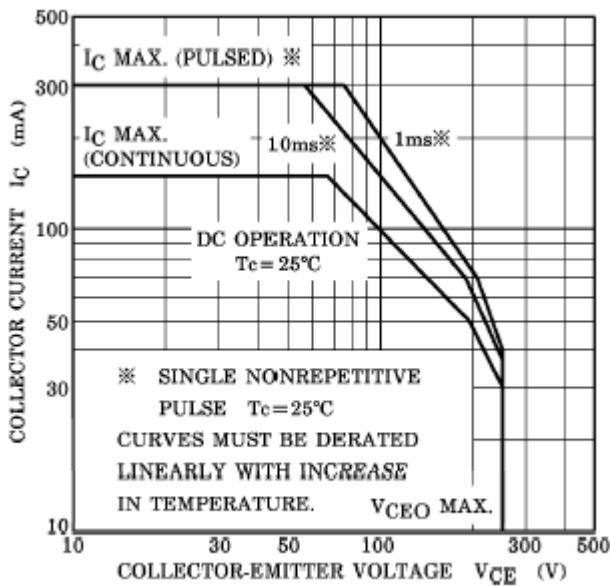


Fig.7 Safe Operating Area