

Silicon NPN Power Transistors

BU406 BU407

DESCRIPTION

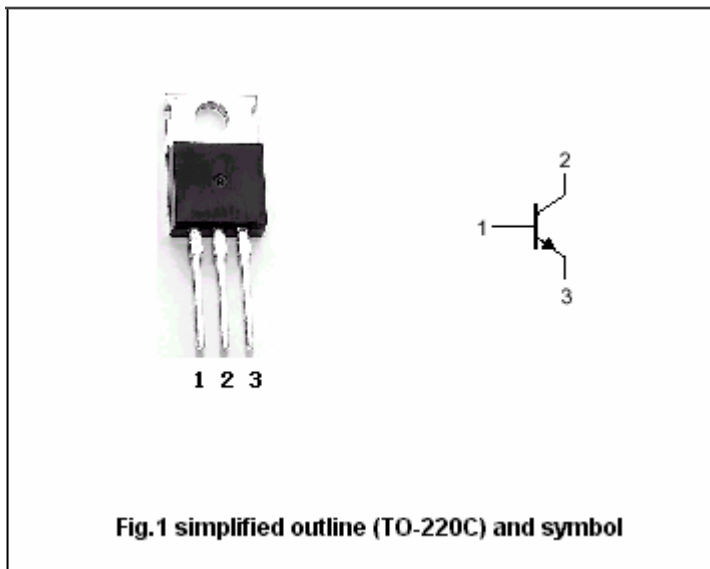
- With TO-220C package
- High voltage;high speed
- Low collector saturation voltage

APPLICATIONS

- For use in horizontal deflection output stages of TV's and CTV's circuits

PINNING

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BU406	400	V
		BU407	330	
V _{CEO}	Collector-emitter voltage	BU406	200	V
		BU407	150	
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current		7	A
I _{CM}	Collector current-Peak		10	A
I _B	Base current		4	A
P _{tot}	Total power dissipation	T _C =25°C	60	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	2.08	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BU406	I _C =100mA ; I _B =0	200		V
		BU407		150		
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A ; I _B =0.5A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ; I _B =0.5A			1.2	V
I _{CES}	Collector cut-off current	BU406	V _{CE} =400V ; V _{BE} =0		5	mA
		BU407		V _{CE} =330V ; V _{BE} =0		
I _{EBO}	Emitter cut-off current	V _{EB} =6.0V ; I _C =0			1.0	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =5V	40		120	
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V ; f=1.0MHz	10			MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V ; f=1.0MHz		80		pF
t _f	Fall time	I _C =5A ; V _{CC} =40V I _{B1} = -I _{B2} =0.6A ; L=150μH			0.75	μs

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PACKAGE OUTLINE

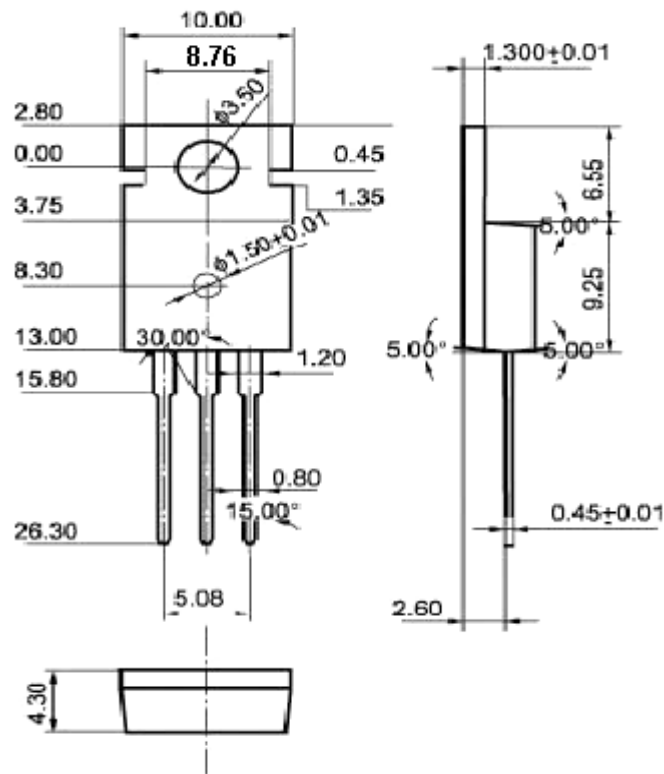


Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)

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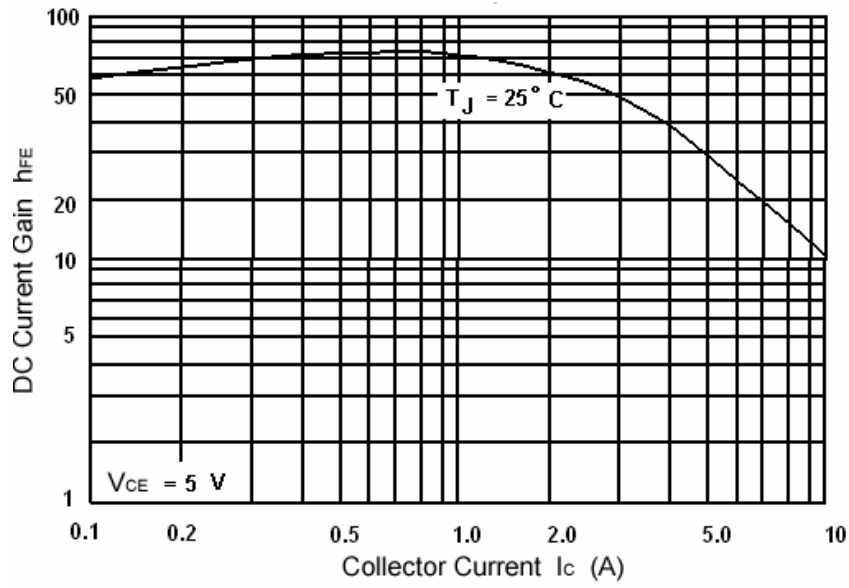


Fig.3 DC current Gain

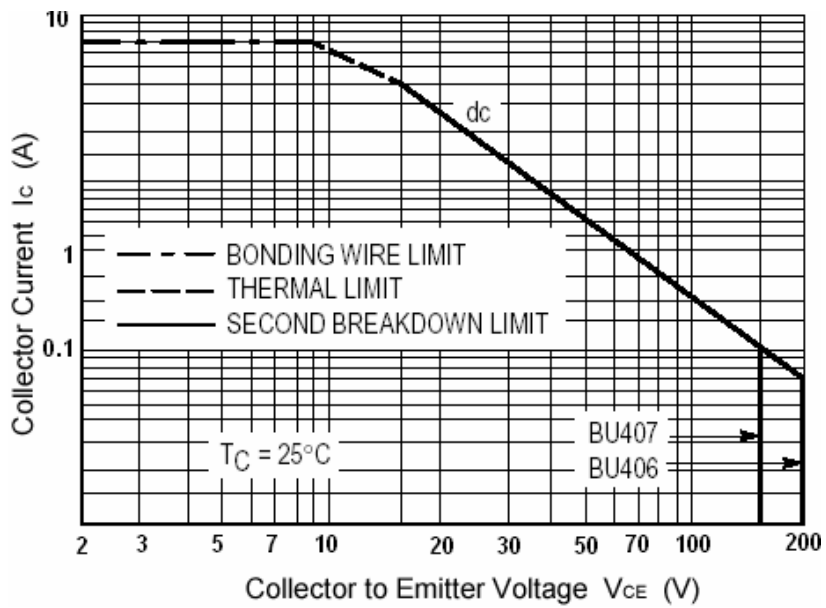


Fig.4 Safe Operating Area