

Silicon NPN Power Transistors

2SC4437

DESCRIPTION

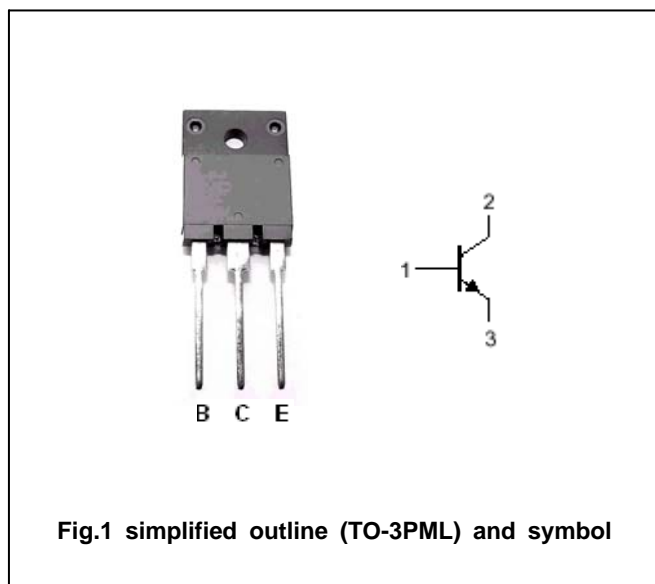
- With TO-3PML package
- High speed
- High breakdown voltage
- High reliability

APPLICATIONS

- Ultrahigh-definition color display
- Horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		5	A
I_{CM}	Collector current-peak		16	A
P_C	Collector power dissipation		3	W
		$T_C=25^\circ\text{C}$	50	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=100\text{mA}; I_B=0$	800			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=4\text{A}; I_B=1\text{A}$			5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=4\text{A}; I_B=1\text{A}$			1.5	V
I_{CES}	Collector cut-off current	$V_{CE}=1500\text{V}$			1.0	mA
I_{CBO}	Collector cut-off current	$V_{CB}=800\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4\text{V}; I_C=0$			1.0	mA
h_{FE-1}	DC current gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8			
h_{FE-2}	DC current gain	$I_C=4\text{A}; V_{CE}=5\text{V}$	4		6	

Switching times

t_{stg}	Storage time	$I_C=4\text{A}; I_{B1}=0.8\text{A};$ $I_{B2}=-1.6\text{A};$ $V_{CC}=250\text{V}$			3.0	μs
t_f	Fall time				0.3	μs

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PACKAGE OUTLINE

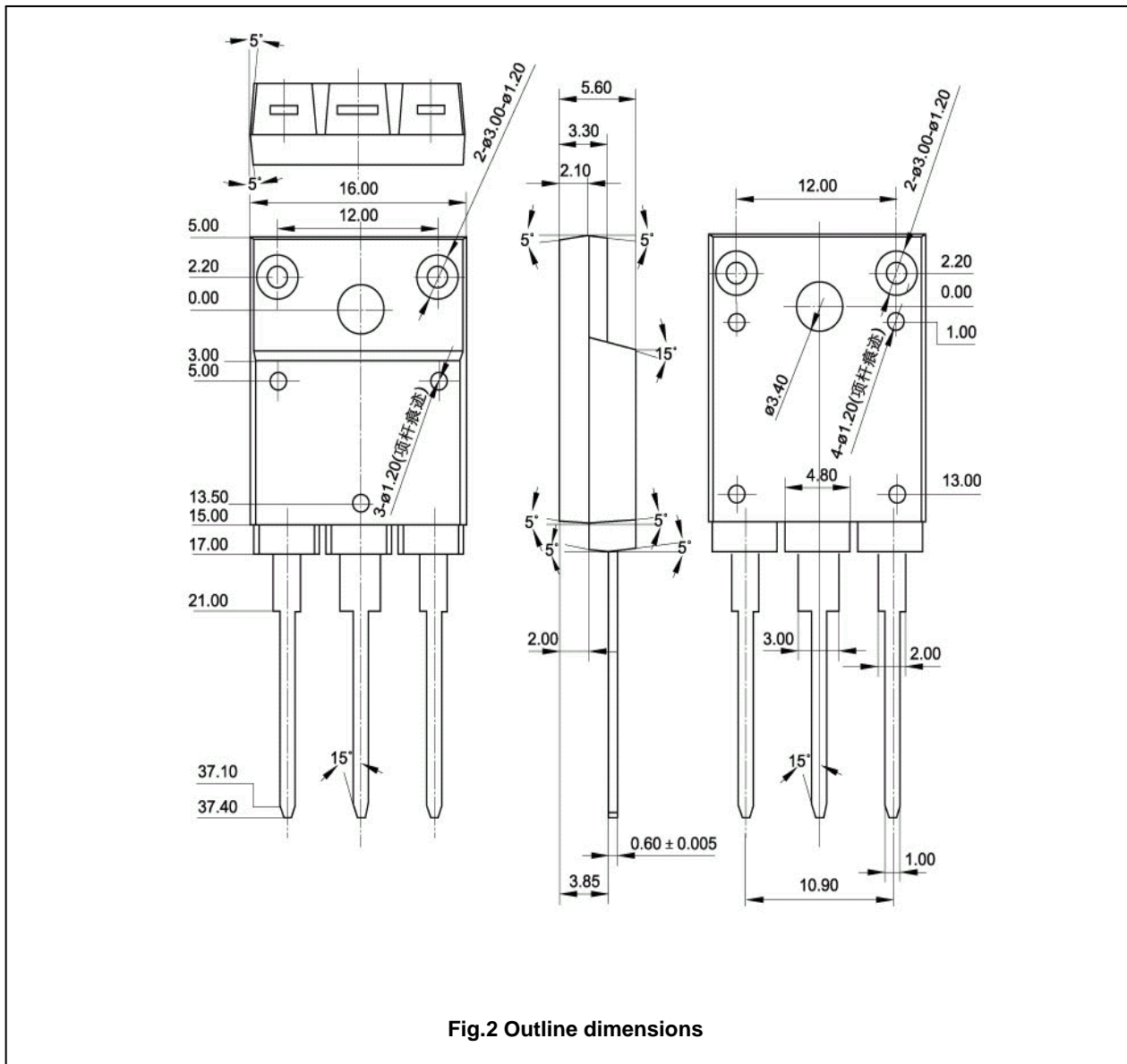


Fig.2 Outline dimensions

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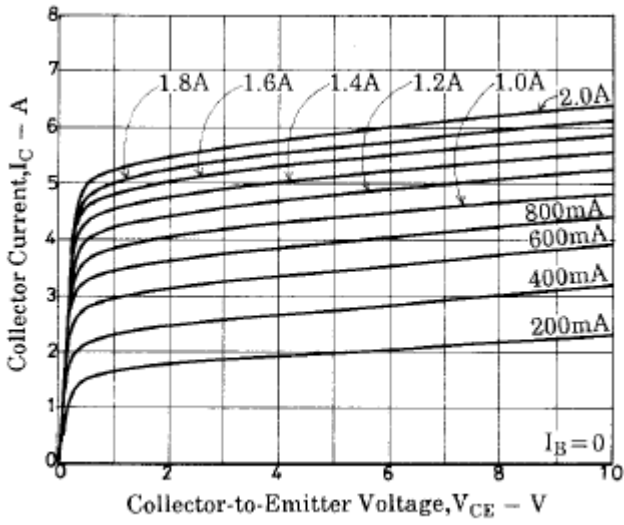


Fig.3 Static Characteristic

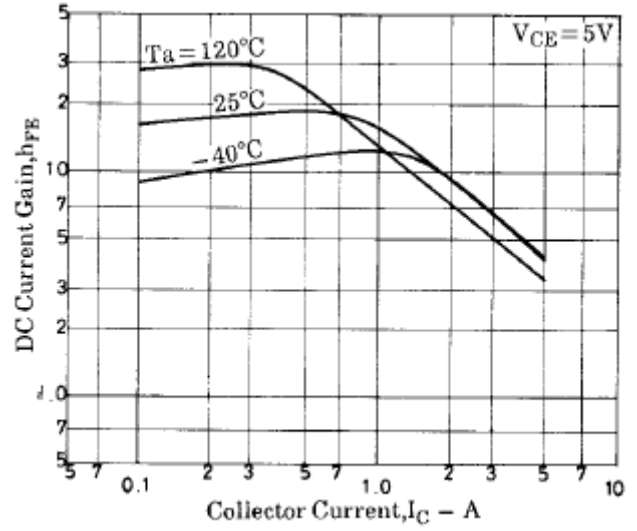


Fig.4 DC current Gain

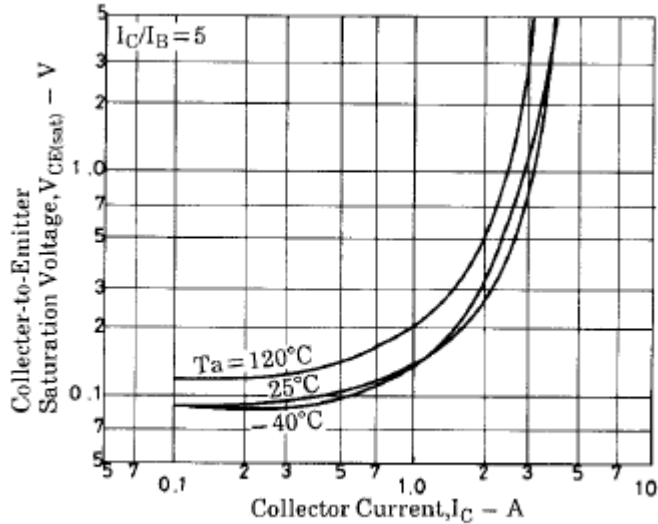


Fig.5 Collector-Emmitter Saturation Voltage

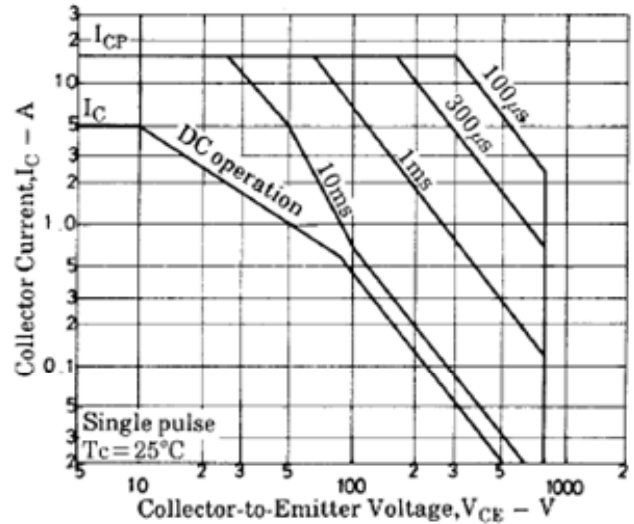


Fig.6 Safe Operating Area