

Silicon PNP Power Transistors

2SB1548 2SB1548A

DESCRIPTION

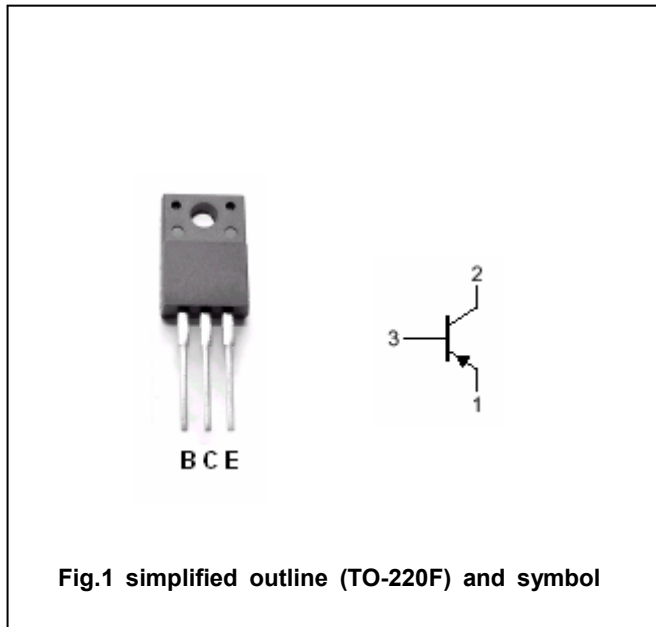
- With TO-220F package
- Complement to type 2SD2374/2374A
- Low collector saturation voltage
- High forward current transfer ratio h_{FE} which has satisfactory linearity

APPLICATIONS

- For power amplifications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SB1548	-60	V
		2SB1548A	-80	
V_{CEO}	Collector-emitter voltage	2SB1548	-60	V
		2SB1548A	-80	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-3	A
I_{CM}	Collector current-peak		-5	A
P_C	Collector dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_C=25^\circ\text{C}$	25	
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 _{CEO}	Collector-emitter voltage	2SB1548	I _C =-30mA ; I _B =0	-60			V
		2SB1548A		-80			
V _{CEsat}	Collector-emitter saturation voltage		I _C =-3A ; I _B =-0.375A			-1.2	V
V _{BE}	Base-emitter voltage		I _C =-3A ; V _{CE} =-4V			-1.8	V
I _{CBO}	Collector cut-off current	2SB1548	V _{CB} =-60V ; I _E =0			-200	μA
		2SB1548A	V _{CB} =-80V ; I _E =0				
I _{CEO}	Collector cut-off current	2SB1548	V _{CE} =-30V ; I _B =0			-300	μA
		2SB1548A	V _{CE} =-60V ; I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V ; I _C =0			-1	mA
h _{FE-1}	DC current gain		I _C =-1A ; V _{CE} =-4V	70		250	
h _{FE-2}	DC current gain		I _C =-3A ; V _{CE} =-4V	10			
f _T	Transition frequency		I _C =-0.5A ; V _{CE} =-10V		30		MHz

Switching times

t _{on}	Turn-on time	I _C =-1.0A I _{B1} =-I _{B2} =-0.1A		0.5		μs
t _s	Storage time			1.2		μs
t _f	Fall time			0.3		μs

◆ h_{FE-1} Classifications

Q	P
70-150	120-250

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PACKAGE OUTLINE

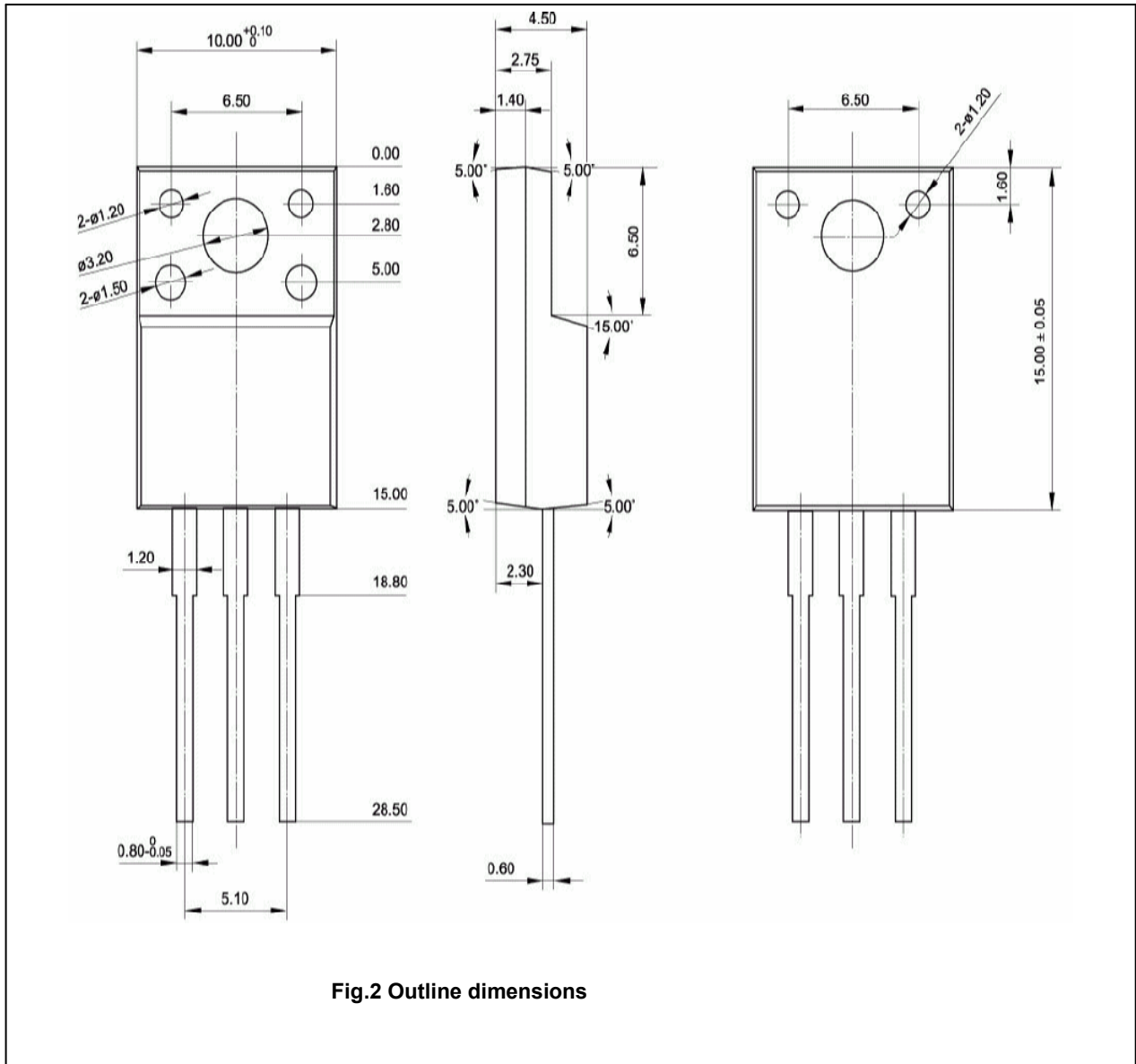


Fig.2 Outline dimensions

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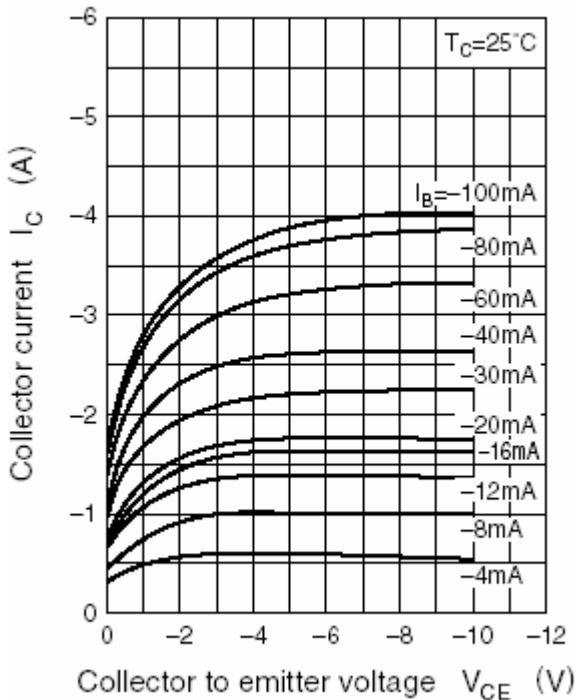


Fig.3 Static Characteristic

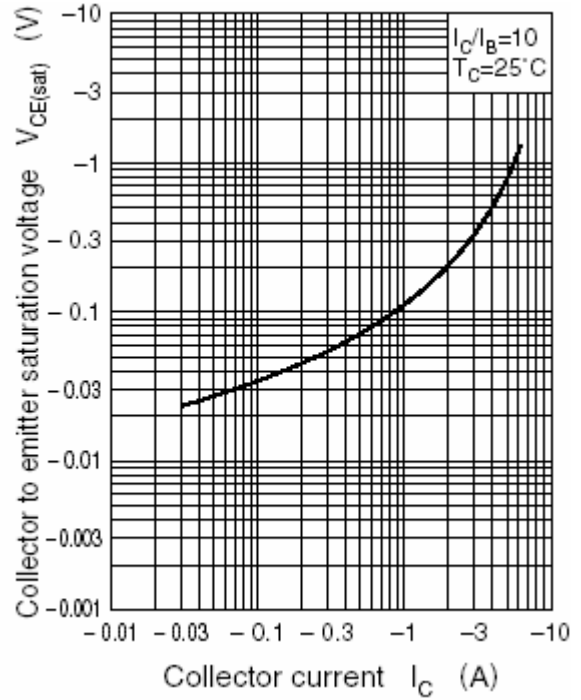


Fig.4 Collector-Emitter Saturation Voltage

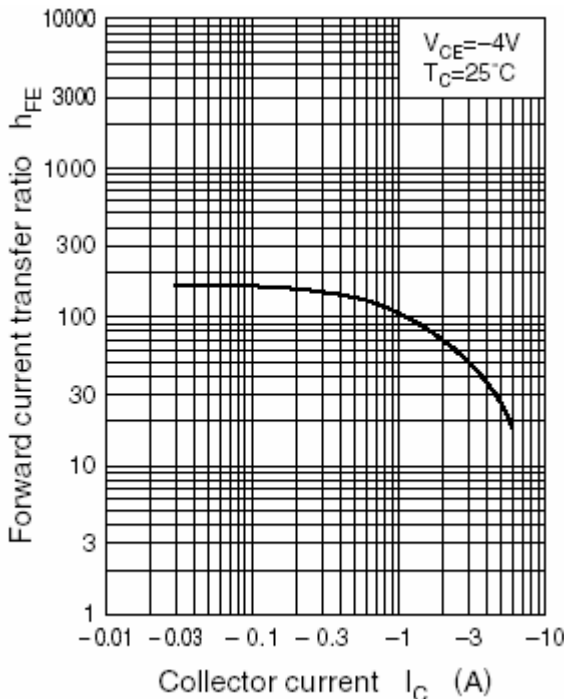


Fig.5 DC current Gain

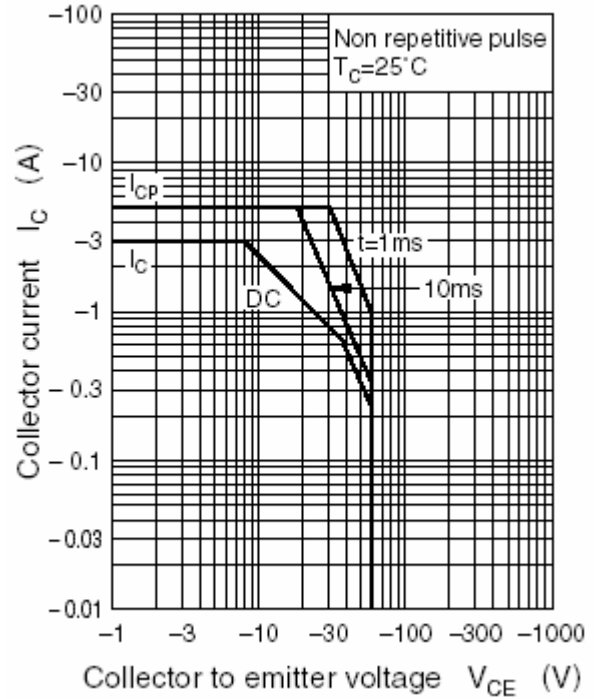


Fig.6 Safe Operating Area