

Silicon PNP Power Transistors

2SB1368

DESCRIPTION

- With TO-220F package
- Complement to type 2SD2060
- Low collector saturation voltage:
 $V_{CE(SAT)}=-1.7V(Max)$ at $I_C=-3A, I_B=-0.3A$
- Collector power dissipation:
 $P_C=25W(T_C=25\text{ }^{\circ}C)$

APPLICATIONS

- With general purpose applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base

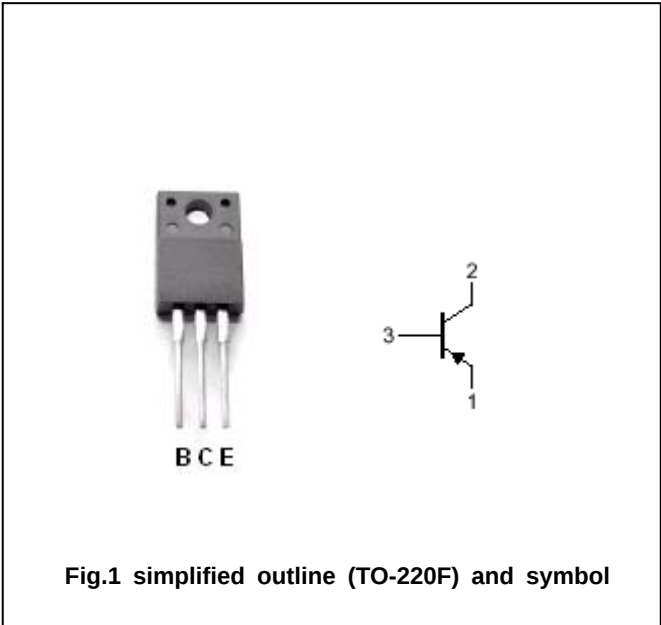


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25 °C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-80	V
V_{CEO}	Collector-emitter voltage	Open base	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-4	A
I_B	Base current		-0.4	A
P_C	Collector dissipation	$T_a=25$	2.0	W
		$T_C=25$	25	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA ; I _B =0	-80			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-3A ; I _B =-0.3A		-1.0	-1.7	V
V _{BE}	Base-emitter on voltage	I _C =-3A; V _{CE} =-5V		-1.0	-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-80V; I _E =0			-30	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-100	μA
h _{FE-1}	DC current gain	I _C =-0.5A ; V _{CE} =-5V	40		240	
h _{FE-2}	DC current gain	I _C =-3A ; V _{CE} =-5V	15			
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-5V		9.0		MHz
C _{OB}	Collector output capacitance	f=1MHz; V _{CB} =10V		130		pF

◆ h_{FE-1} Classifications

R	O	Y
40-80	70-140	120-240

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PACKAGE OUTLINE

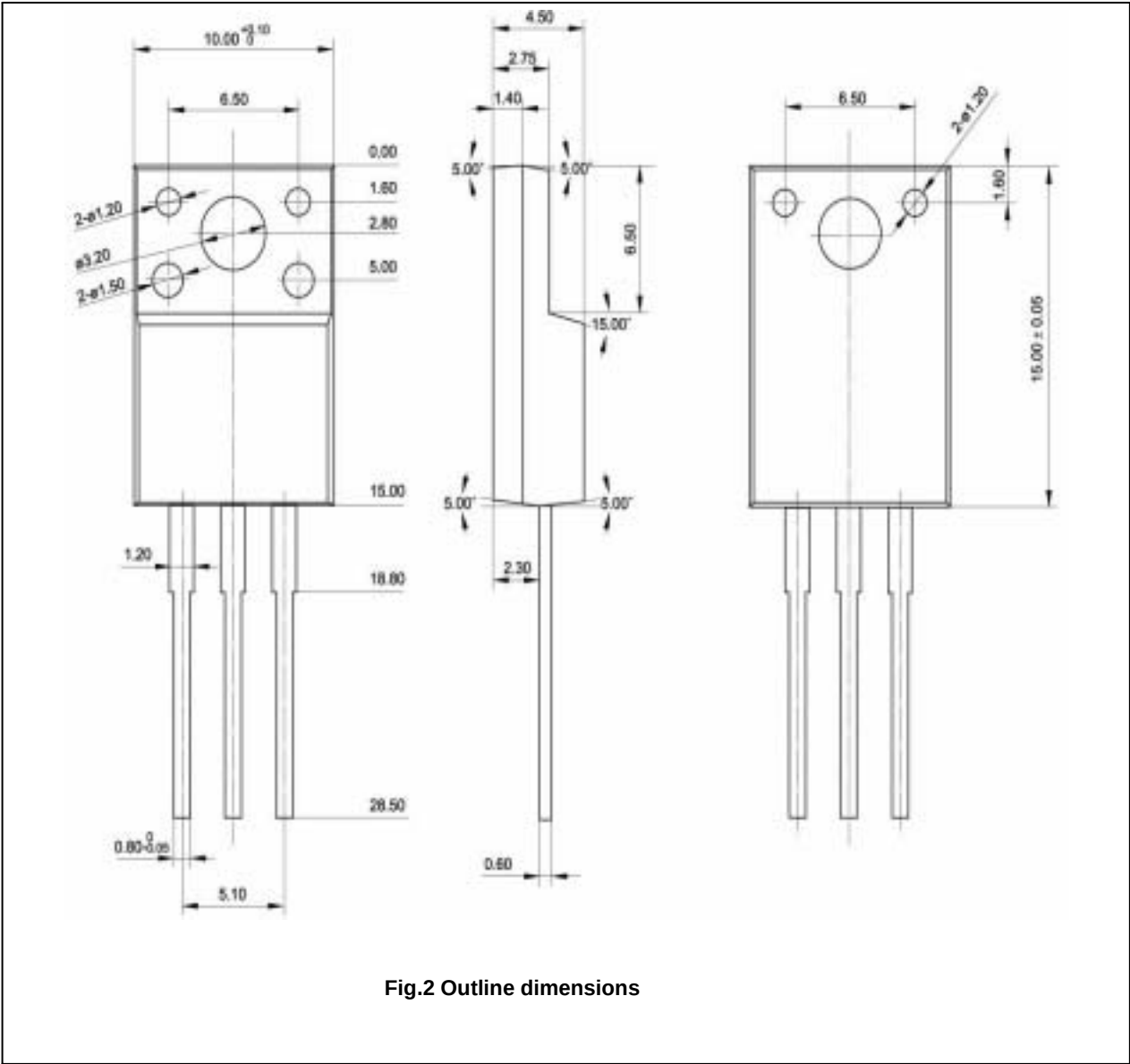


Fig.2 Outline dimensions

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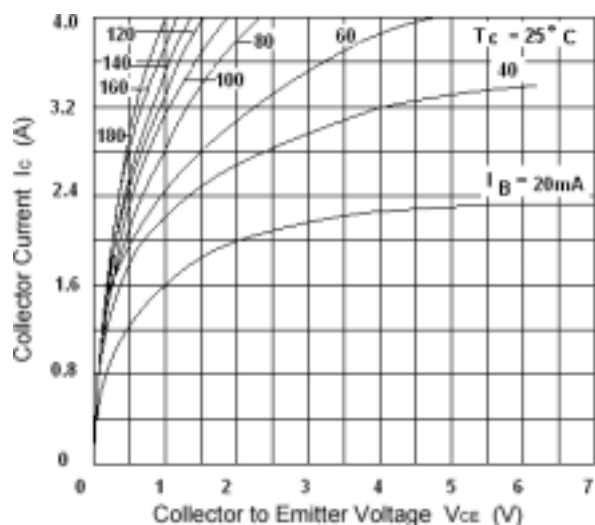


Fig.3 Static Characteristic

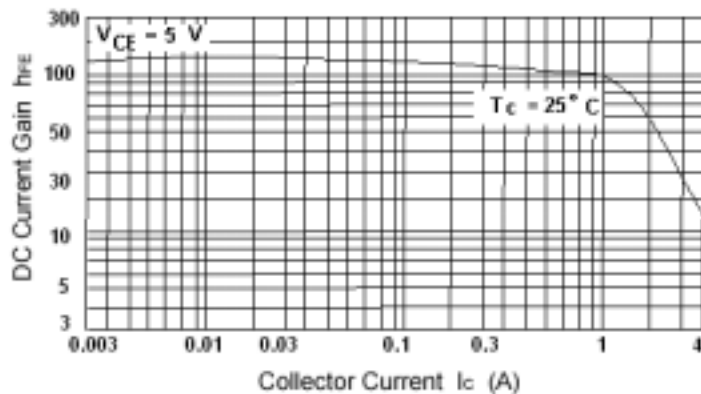


Fig.4 DC current Gain

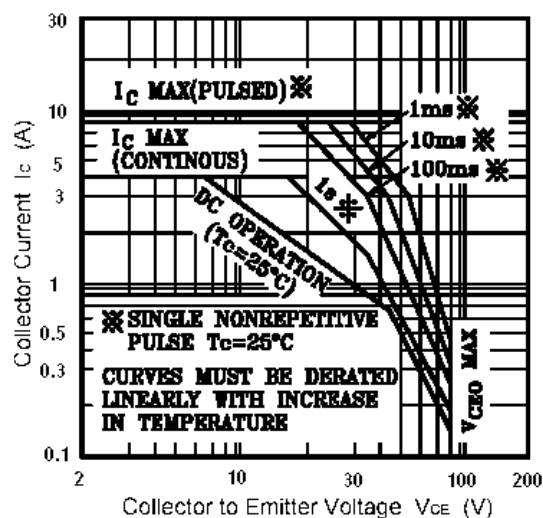


Fig.5 Safe Operating Area

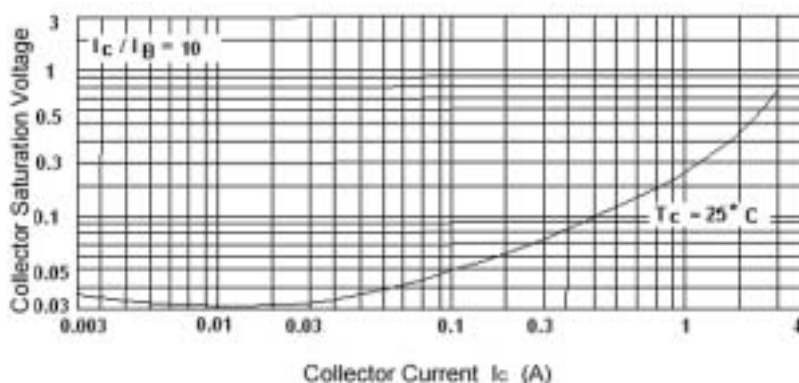


Fig.6 Collector-Emmitter Saturation Voltage