

Silicon PNP Power Transistors

2SB1366

DESCRIPTION

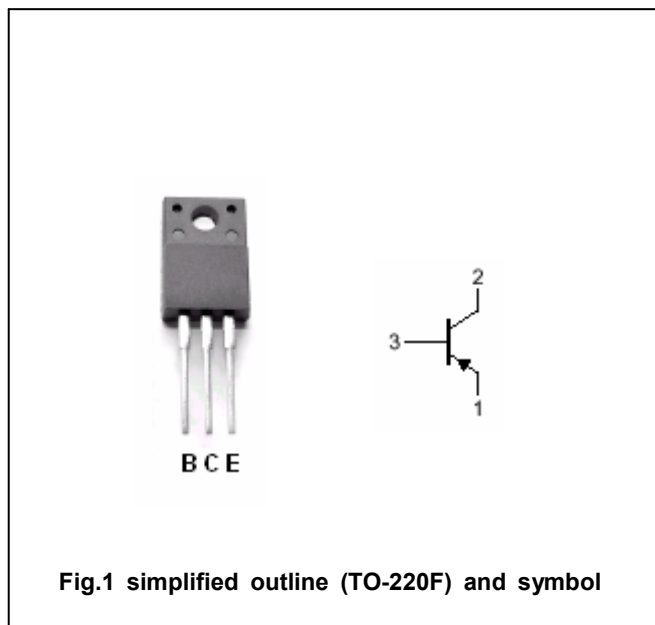
- With TO-220F package
- Complement to type 2SD2058
- Low collector saturation voltage:
 $V_{CE(SAT)} = -1.0V(\text{Max})$ at $I_C = -2A, I_B = -0.2A$
- Collector power dissipation:
 $P_C = 25W(T_C = 25^\circ\text{C})$

APPLICATIONS

- With general purpose applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-3	A
I_B	Base current		-0.5	A
P_C	Collector dissipation	$T_a = 25^\circ\text{C}$	2.0	W
		$T_C = 25^\circ\text{C}$	25	
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA ; I _B =0	-60			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-2A ; I _B =-0.2A			-1.0	V
V _{BE}	Base-emitter on voltage	I _C =-0.5A ; V _{CE} =-5V			-1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-60V ; I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-7V ; I _C =0			-0.1	mA
h _{FE-1}	DC current gain	I _C =-0.5A ; V _{CE} =-5V	60		200	
h _{FE-2}	DC current gain	I _C =-3A ; V _{CE} =-5V	20			
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-5V		9.0		MHz
C _{OB}	Collector output capacitance	f=1MHz ; V _{CB} =-10V		150		pF

Switching times

t _{on}	Turn-on time	I _C =-2.0A I _{B1} =-I _{B2} =-0.2A V _{CC} =-30V , R _L =15Ω		0.4		μs
t _s	Storage time			1.7		μs
t _f	Fall time			0.5		μs

◆ h_{FE-1} Classifications

O	Y
60-120	100-200

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PACKAGE OUTLINE

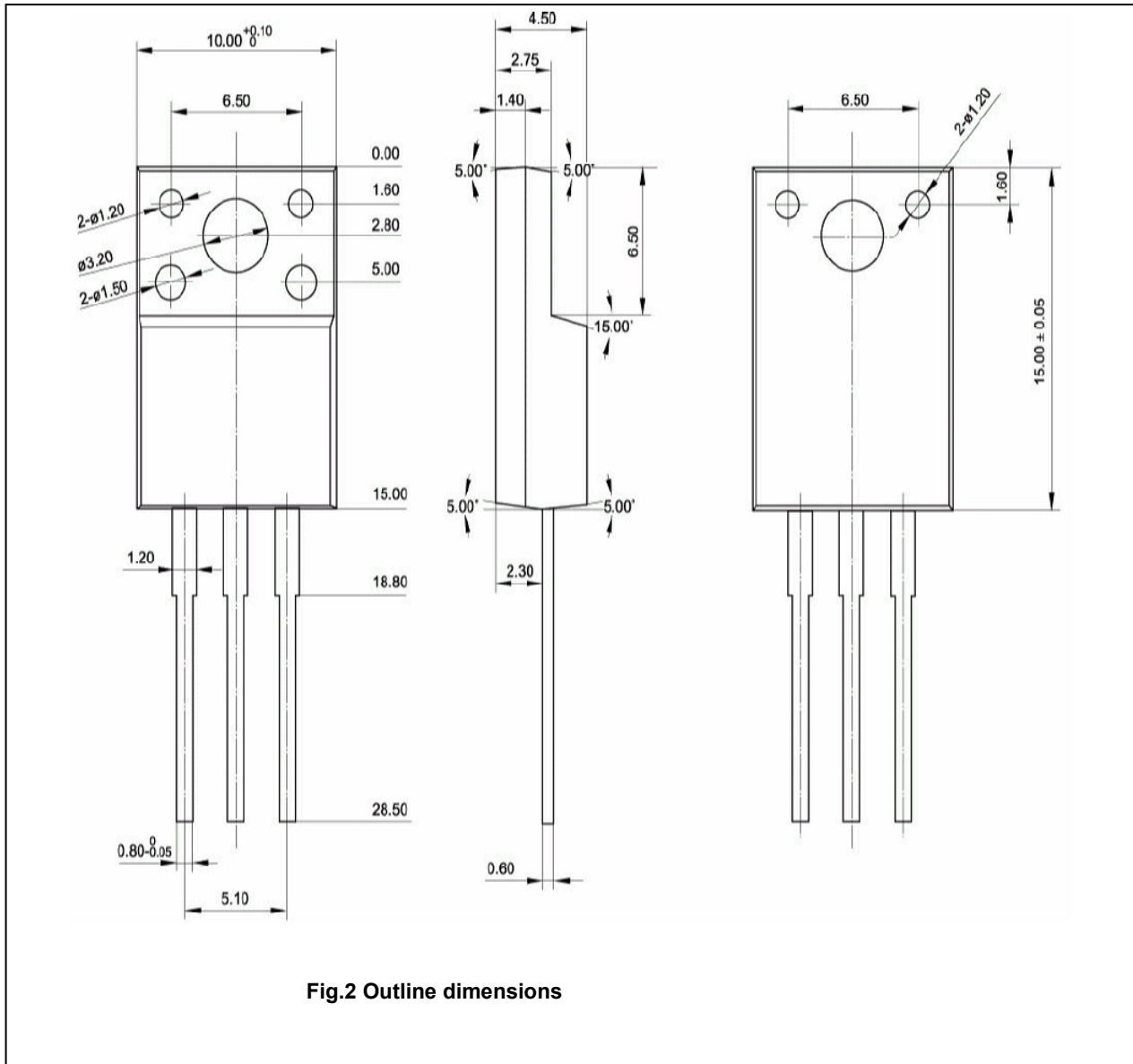


Fig.2 Outline dimensions

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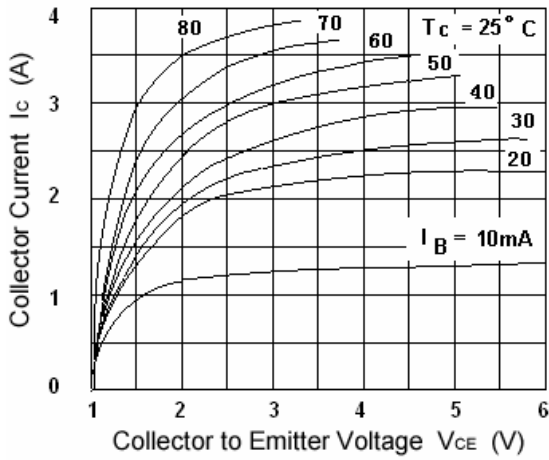


Fig.3 Static Characteristic

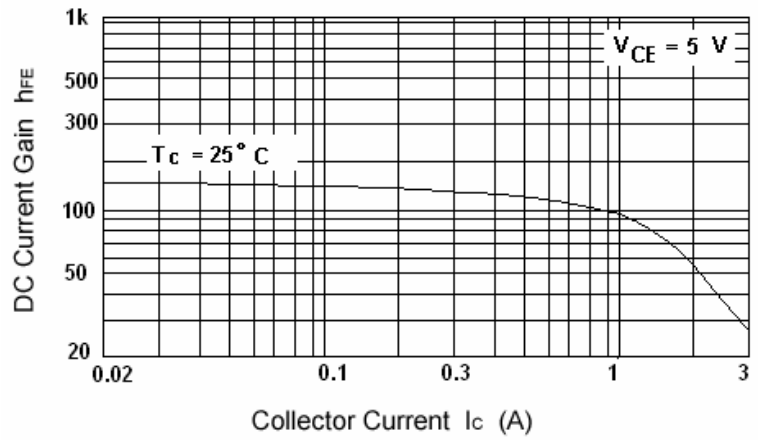


Fig.4 DC current Gain

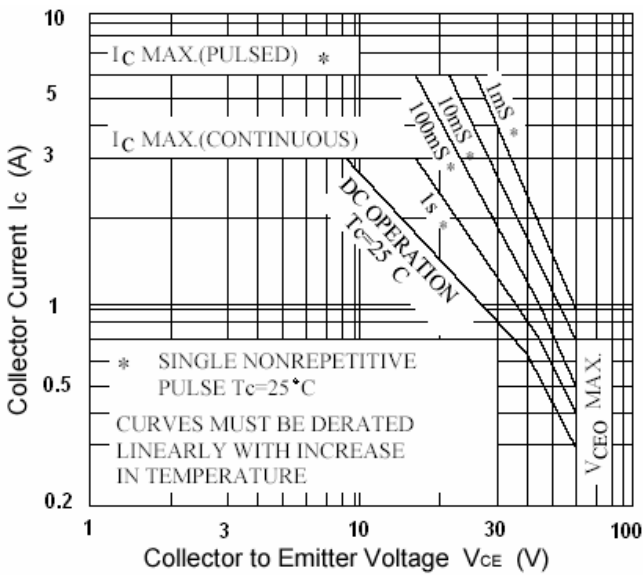


Fig.5 Safe Operating Area

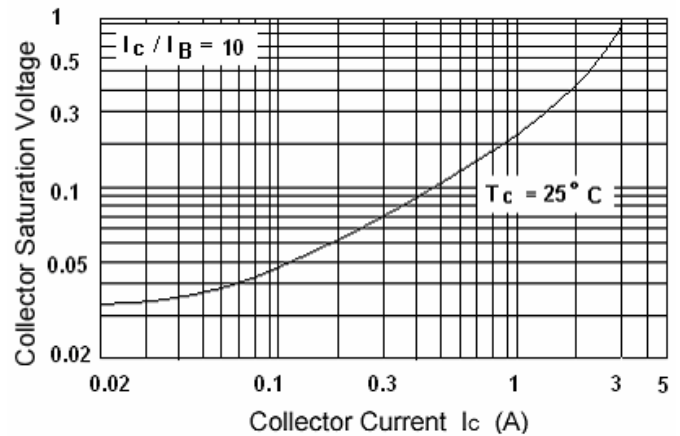


Fig.6 Collector-Emitter Saturation Voltage