

Silicon PNP Power Transistors

2SB1016

DESCRIPTION

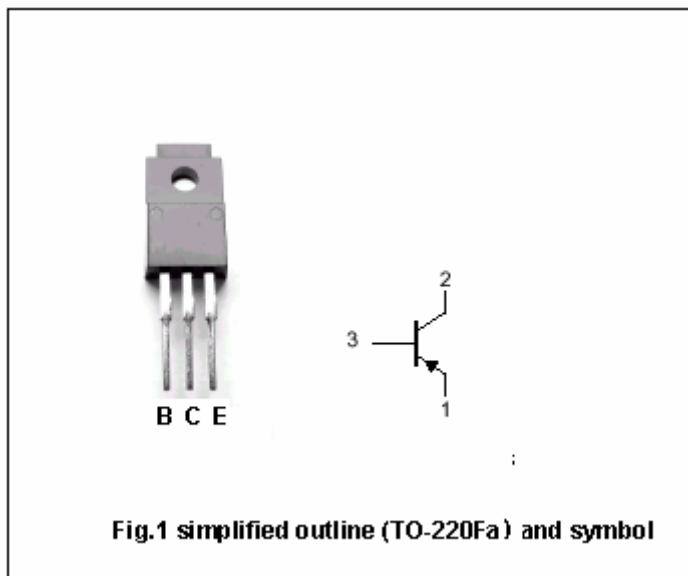
- With TO-220Fa package
- High breakdown voltage
- Low collector saturation voltage
- Complement to type 2SD1407

APPLICATIONS

- Power amplifier 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	-100	V
V _{CEO}	Collector -emitter voltage	Open base	-100	V
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-5	A
I _B	Base current		-0.5	A
P _C	Collector power dissipation	T _C =25°C	30	W
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	-100			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-4A; I _B =-0.4A			-2.0	V
V _{BE}	Base-emitter voltage	I _C =-4A; V _{CE} =-5V			-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V; I _E =0			-100	μA
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} =-5V	40		240	
h _{FE-2}	DC current gain	I _C =-4A; V _{CE} =-5V	20			
f _T	Transition frequency	I _C =-1A; V _{CE} =-5V		5		MHz
C _{OB}	Collector output capacitance	f=1MHz; V _{CB} =-10V; I _E =0		270		pF

◆ h_{FE-1} Classifications

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

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PACKAGE OUTLINE

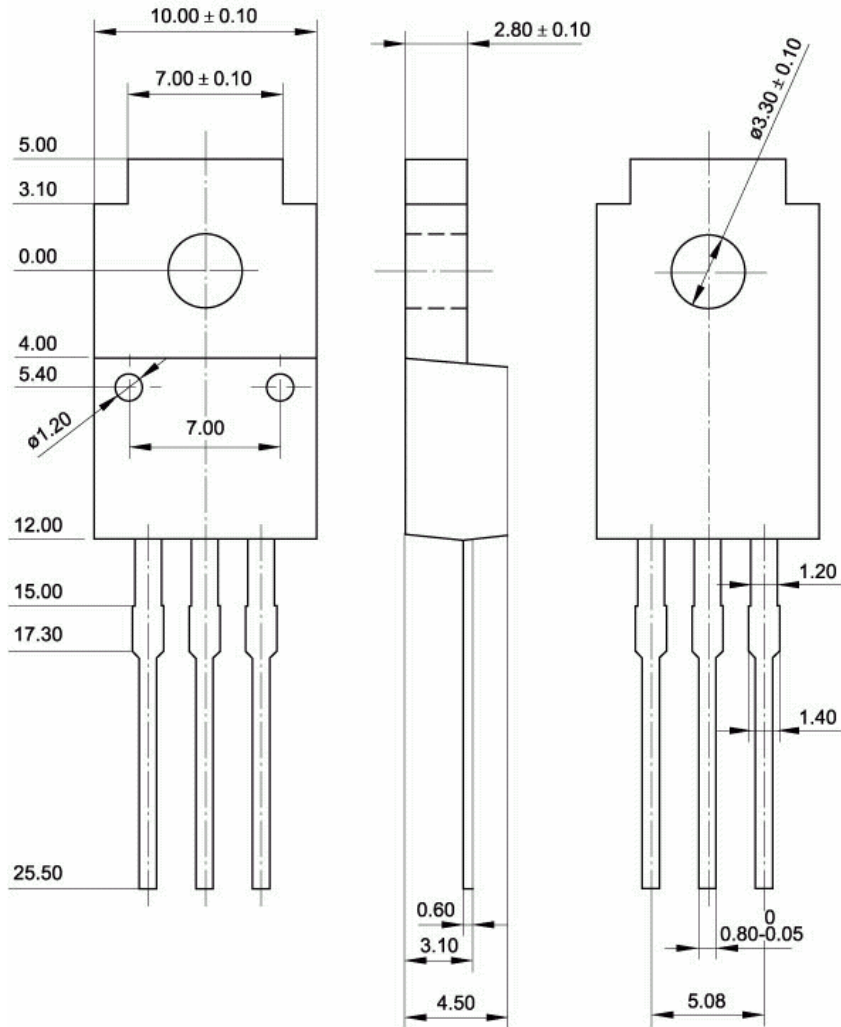


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)

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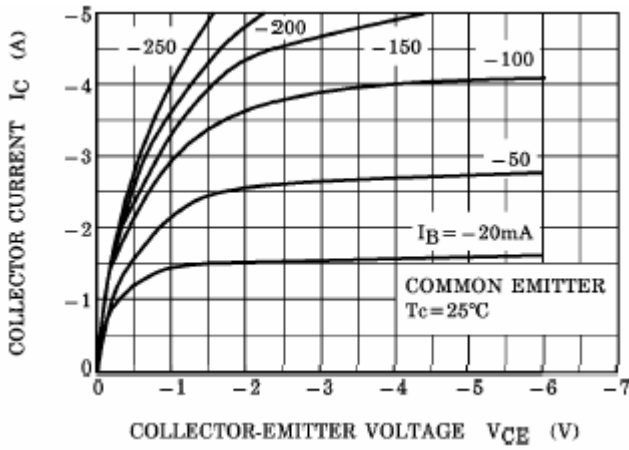


Fig.3 Static Characteristic

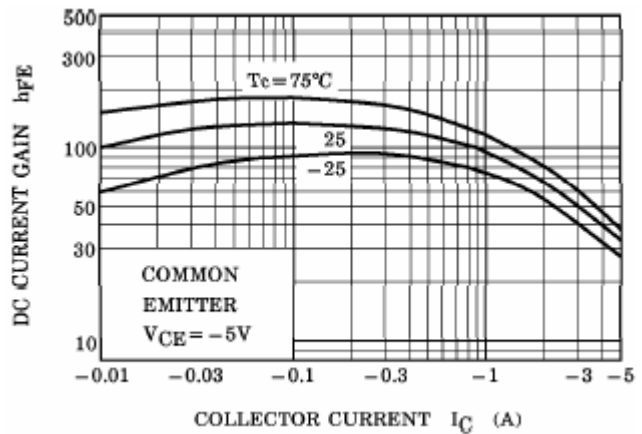


Fig.4 DC current Gain

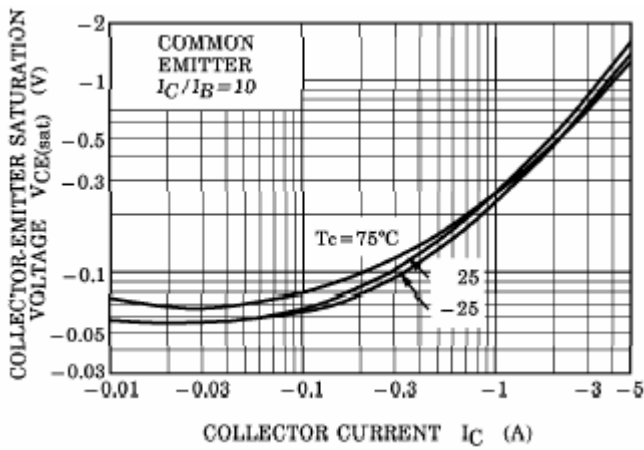


Fig.5 Collector-Emitter Saturation Voltage

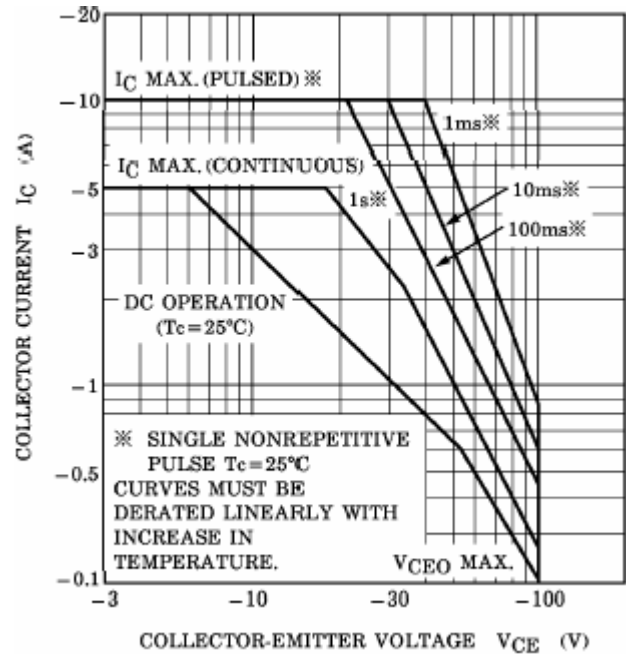


Fig.6 Safe Operating Area

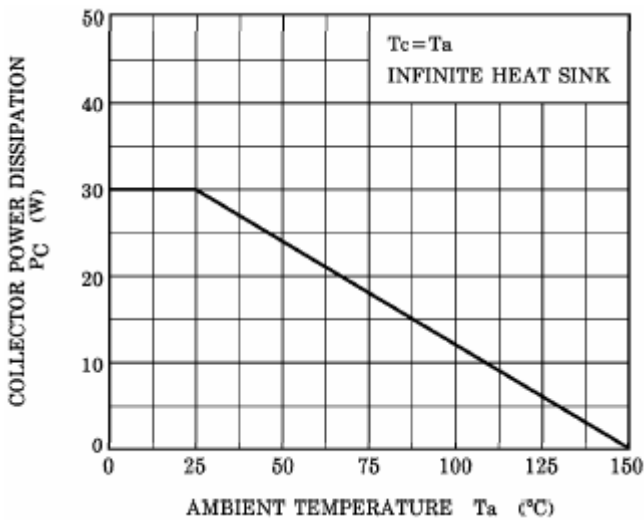


Fig.7 Pc-Ta Derating