

Silicon NPN Power Transistors

2SD288

DESCRIPTION

www.datasheet4u.com

- With TO-220C package
- Collector-base voltage : $V_{CBO}=80V$
- Collector dissipation : $P_C=25W(T_C=25^\circ C)$

APPLICATIONS

- Low frequency power amplifier
- Power regulator applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

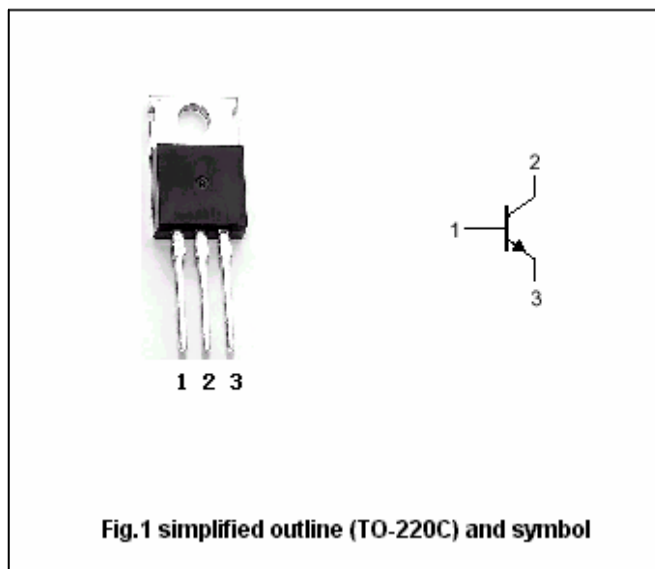


Fig.1 simplified outline (TO-220C) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	80	V
V_{CEO}	Collector-emitter voltage	Open base	55	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		3	A
P_C	Collector power dissipation	$T_C=25^\circ C$	25	W
T_j	Junction temperature		150	$^\circ C$
T_{stg}	Storage temperature		-55~150	$^\circ C$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA; I _B =0	55			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =0.5mA; I _E =0	80			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =0.5mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1 A; I _B =0.1 A			1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =50V; I _E =0			50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			50	μA
h _{FE}	DC current gain	I _C =0.5A ; V _{CE} =5V	40		240	

◆ h_{FE} classifications

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

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PACKAGE OUTLINE

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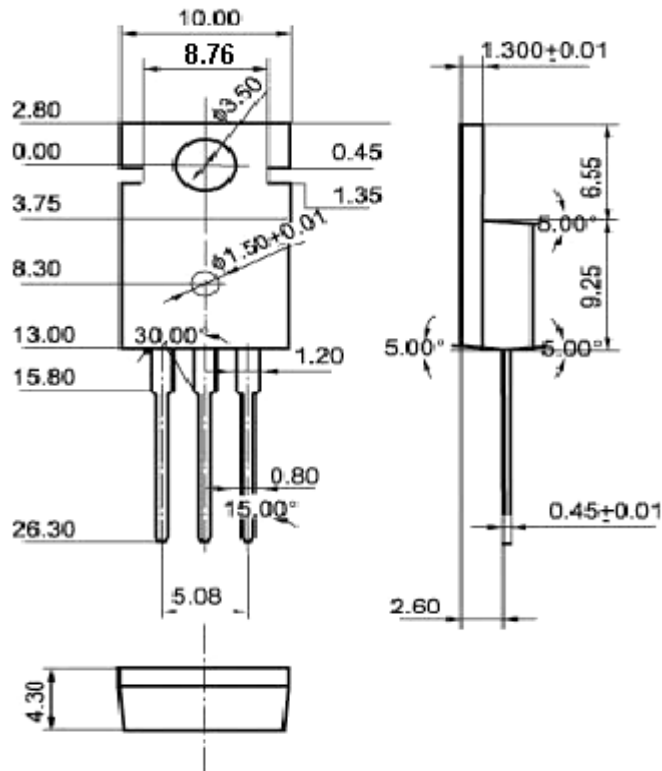


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)

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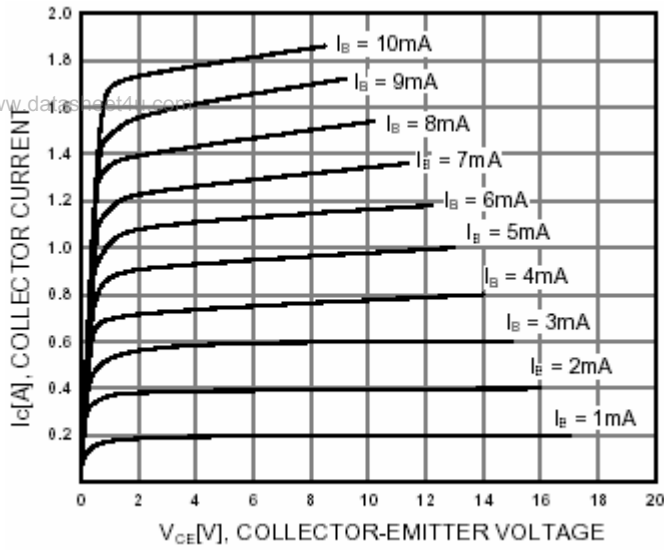


Fig.3 Static Characteristic

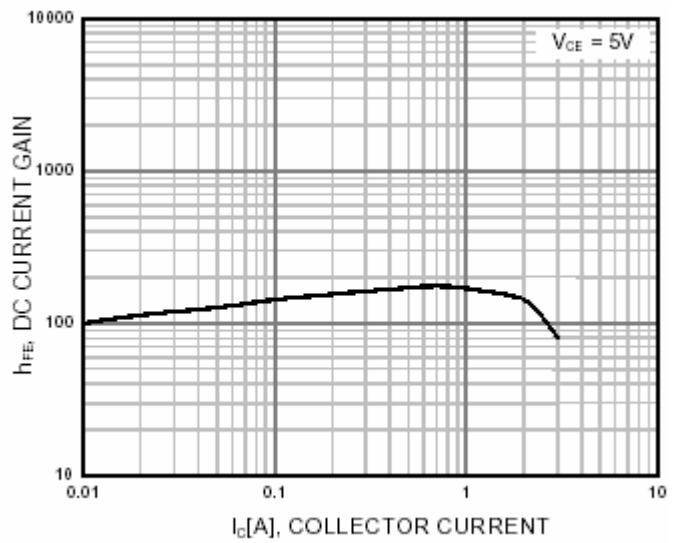


Fig.4 DC current Gain

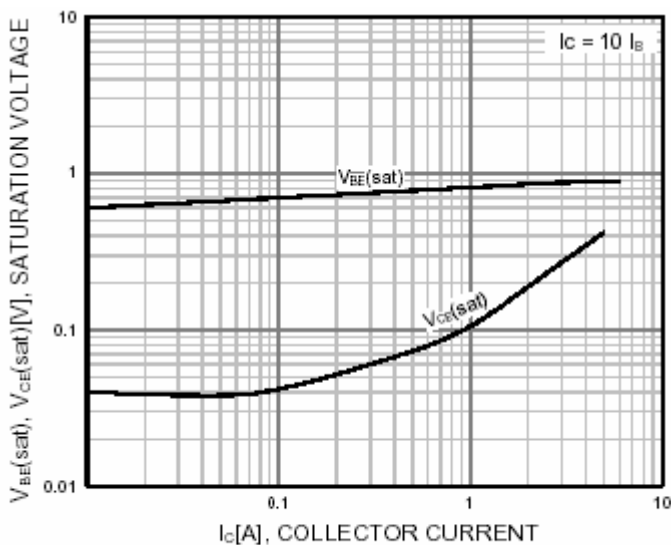


Fig.5 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

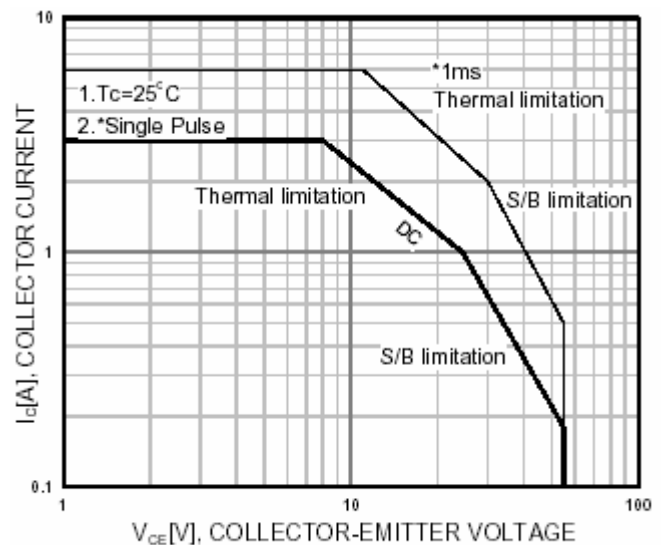


Fig.6 Safe Operating Area