Silicon NPN Power Transistors 2SD1459

DESCRIPTION

·With TO-220 package
·High allowable collector dissipation.
·Complement to type 2SB1037

APPLICATIONS

·Color TV vertical output application
·Sound output application

PINNING

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

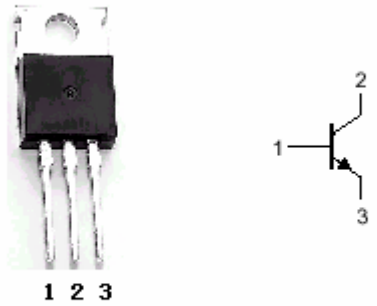

Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	150	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		1.5	A
I_{CM}	Collector current-peak		3.0	A
P_C	Collector power dissipation		2.0	W
		T_C=25□	30	
T_j	Junction temperature		175	□
T_{stg}	Storage temperature		-55~175	□

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA ; I_B=0	150			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=0.5A, I_B=50mA			1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=0.5A, I_B=50mA			1.2	V
I_{CBO}	Collector cut-offcurrent	V_{CB}=120V;I_E=0			10	μA
I_{EBO}	Emitter cut-offcurrent	V_{EB}=5V;I_C=0			10	μA
h_{FE}	DC current gain	I_C=0.3A ; V_{CE}=5V	70		200	
f_T	Transition frequency	I_C=0.1A ; V_{CE}=5V		8		MHz

◆ **h_{FE} classifications**

Q	R
70-140	100-200

PACKAGE OUTLINE

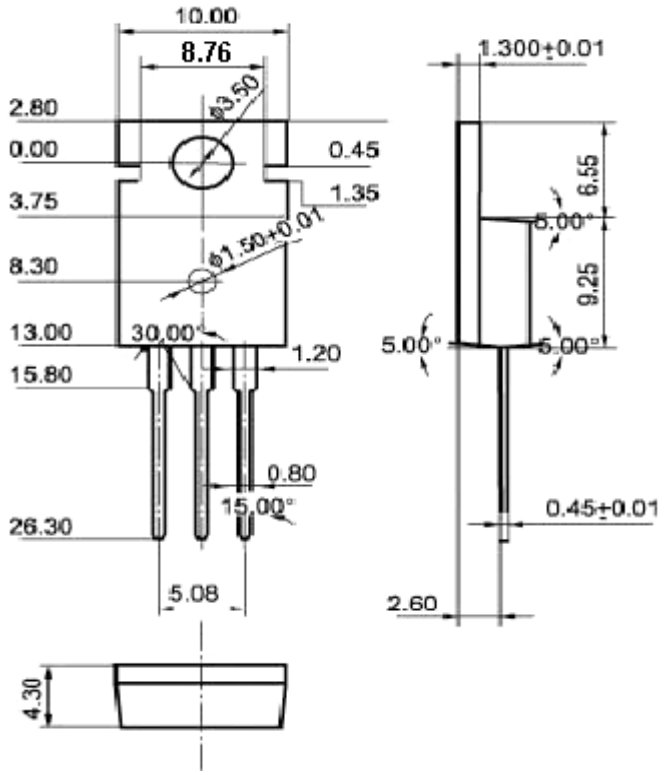

Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)

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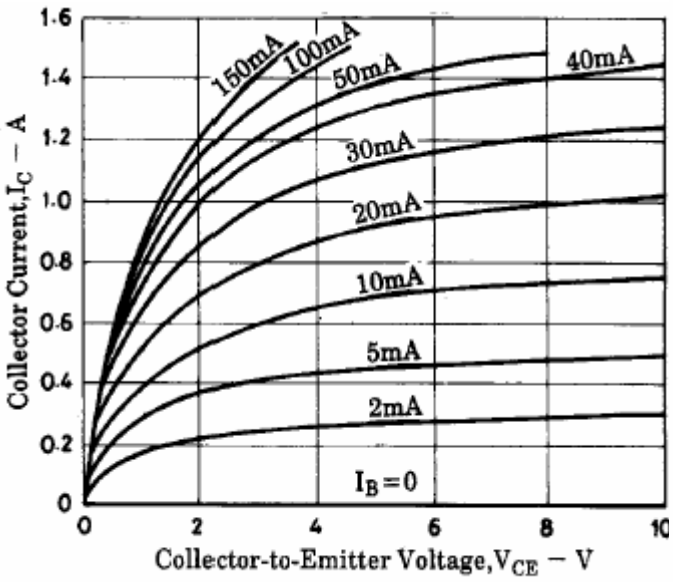

Fig.3 Static Characteristic

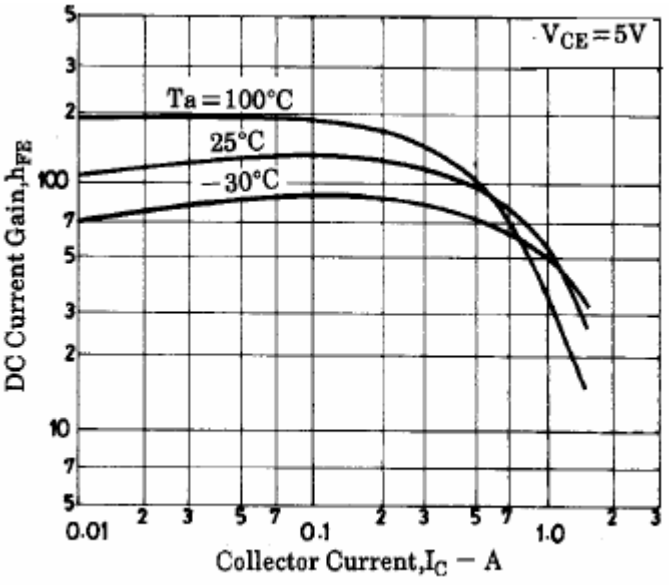

Fig.4 DC current Gain

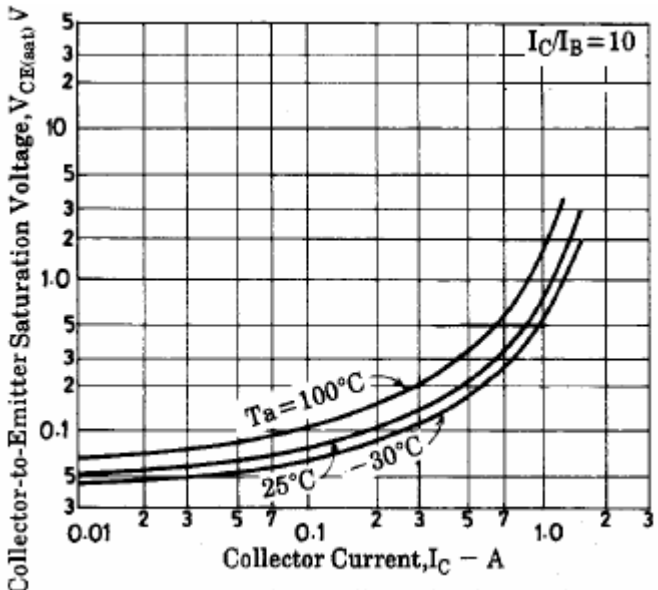

Fig.5 Collector-Emitter Saturation Voltage

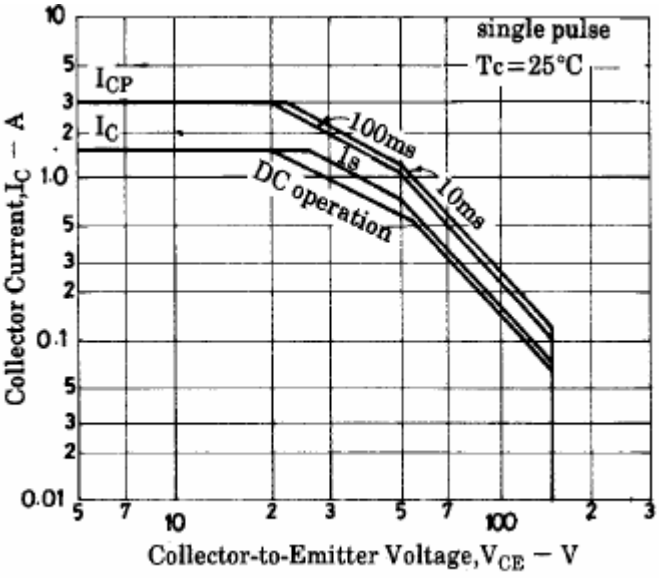

Fig.6 Safe Operating Area