Silicon PNP Power Transistors 2SB940,2SB940A

DESCRIPTION

- With TO-220Fa package
- Complement to type 2SD1264/1264A
- High collector to emitter voltage V_{CEO}
- Large collector power dissipation P_C

APPLICATIONS

- For power amplification
- For TV vertical deflection output

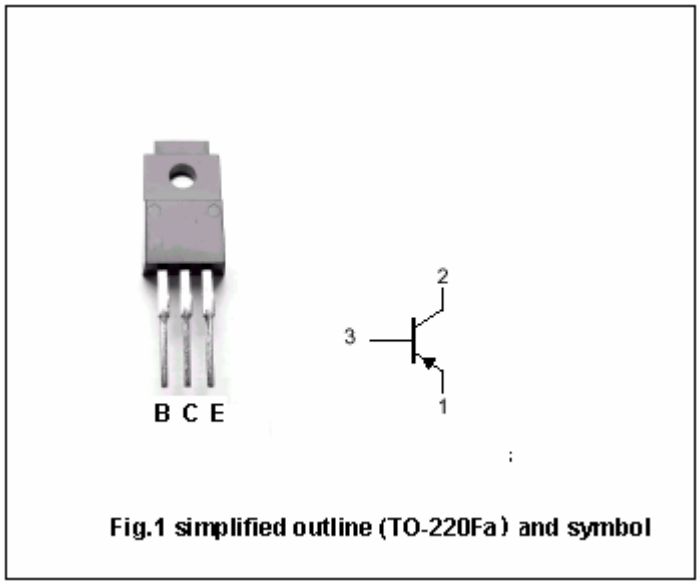

Fig.1 simplified outline (TO-220Fa) and symbol

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SB940	Open emitter	-200	V
		2SB940A		-200	
V_{CEO}	Collector-emitter voltage	2SB940	Open base	-150	V
		2SB940A		-180	
V_{EBO}	Emitter-base voltage		Open collector	-6	V
I_C	Collector current			-2	A
I_{CM}	Collector current-peak			-3	A
P_C	Collector power dissipation		T_a=25℃	2	W
			T_C=25℃	30	
T_j	Junction temperature			150	℃
T_{stg}	Storage temperature			-55~150	℃

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SB940	I_C=-5mA ,I_B=0	-150			V
		2SB940A		-180			
$V_{(BR)CBO}$	Collector-base breakdown voltage		I_C=-50 μA ,I_E=0	-200			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage		I_C=-500 μA ,I_C=0	-6			V
V_{CEsat}	Collector-emitter saturation voltage		I_C=-0.5A, I_B=-50mA			-1.0	V
V_{BE}	Base-emitter voltage		I_C=-0.4A ; V_{CE}=-10V			-1.0	V
I_{EBO}	Emitter cut-off current		V_{EB}=-4V; I_C=0			-50	μA
I_{CBO}	Collector cut-off current		V_{CB}=-200V; I_E=0			-50	μA
h_{FE-1}	DC current gain		I_C=-0.15A ; V_{CE}=-10V	60		240	
h_{FE-2}	DC current gain		I_C=-0.4A ; V_{CE}=-10V	50			
f_T	Transition frequency		I_C=-0.5A; V_{CE}=-10V,f=10MHz		30		MHz

◆ **h_{FE-1} Classifications**

Q	P
60-140	100-240

PACKAGE OUTLINE

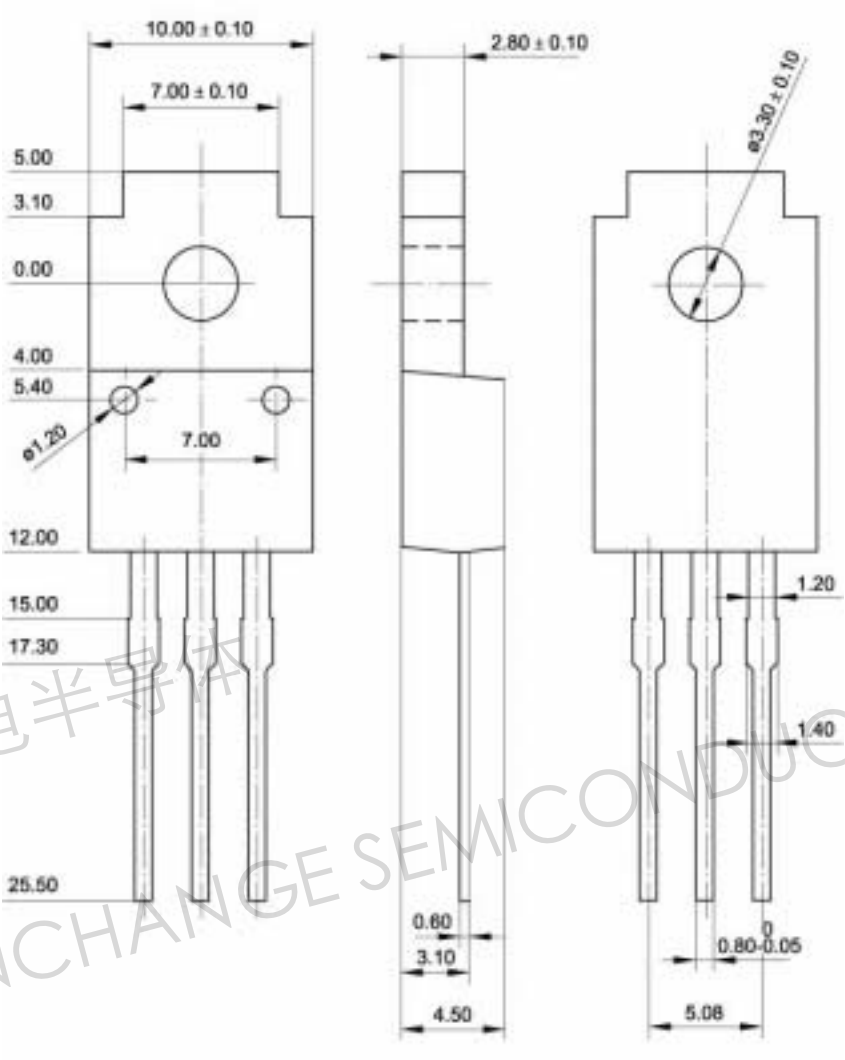

Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)

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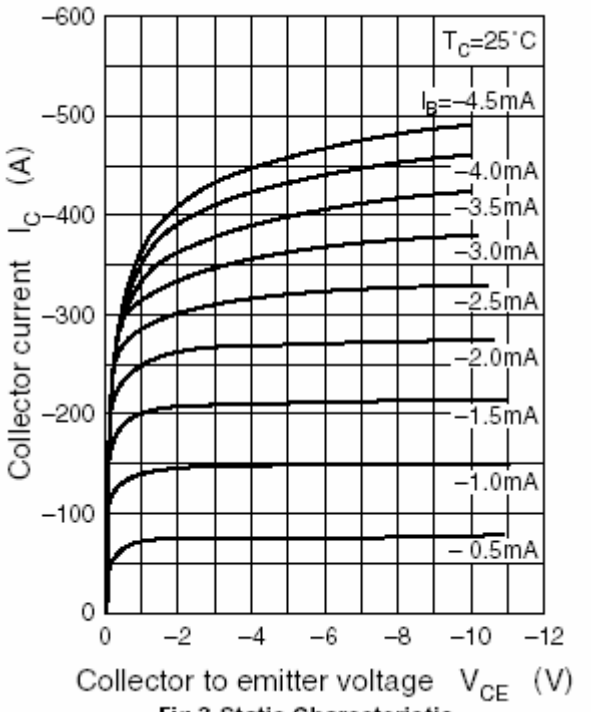

Fig.3 Static Characteristic

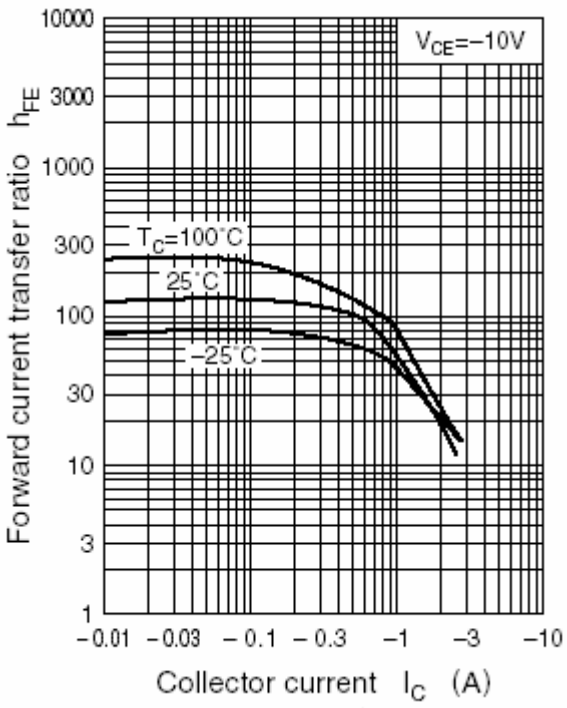

Fig.4 DC current Gain

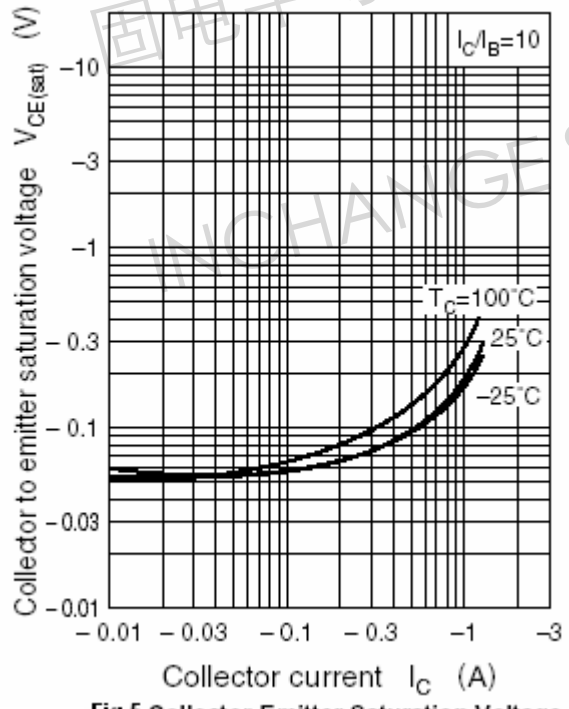

Fig.5 Collector-Emitter Saturation Voltage

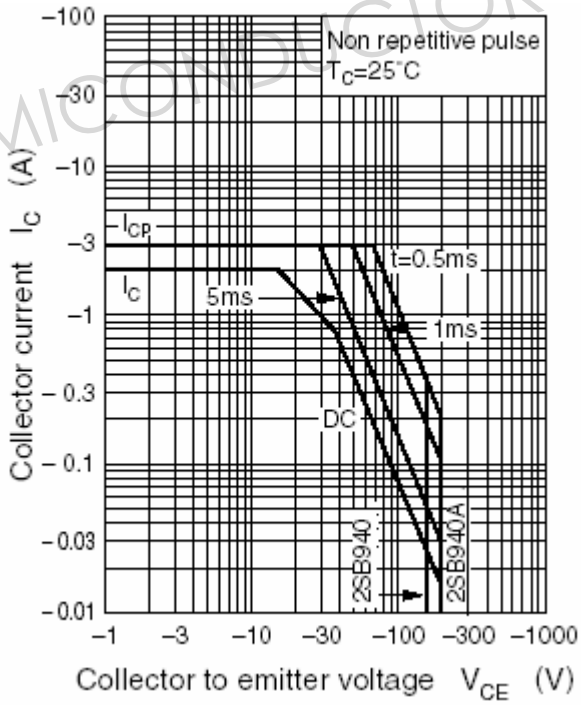

Fig.6 Safe Operating Area