

Silicon PNP Power Transistors

2SA940

DESCRIPTION

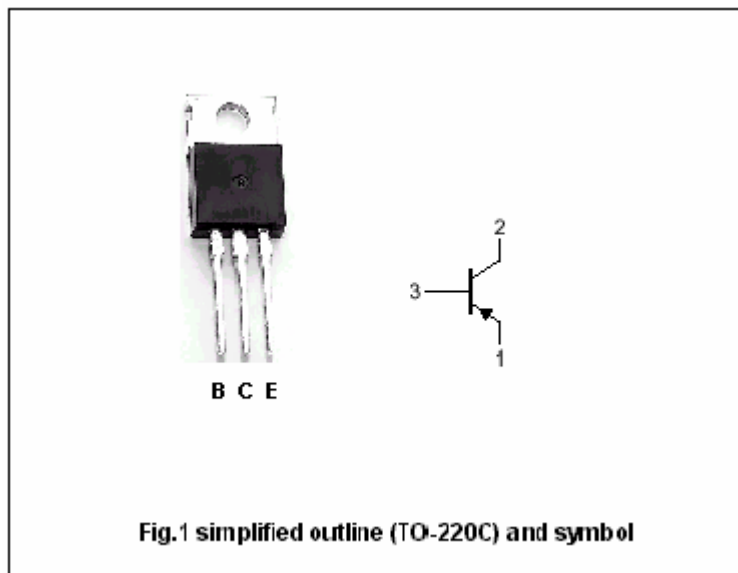
- With TO-220 package
- Complement to type 2SC2073

APPLICATIONS

- Power amplifier applications
- Vertical output applications

PINNING

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

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

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 (DC)		-1.5	A
I_B	Base current		-0.5	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	1.5	W
		$T_C=25^\circ\text{C}$	25	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

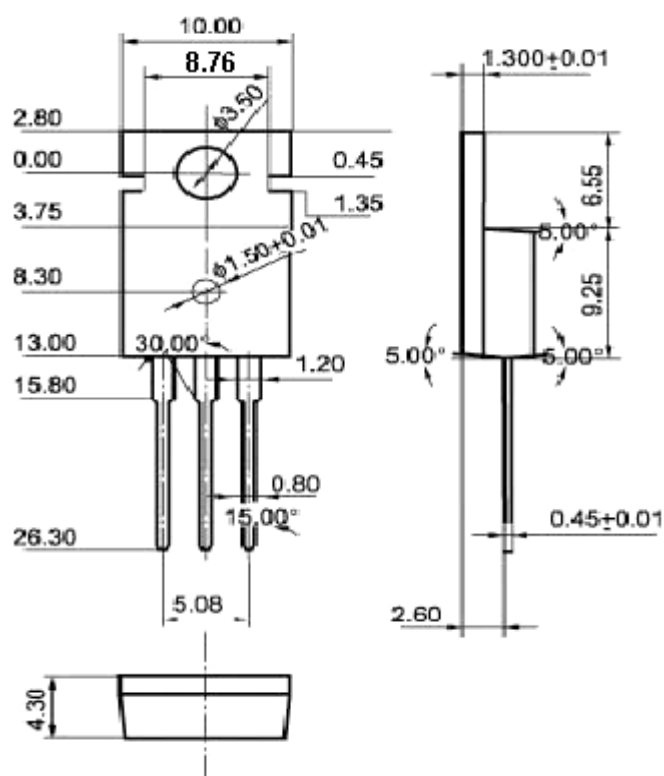
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =-0.5A; I _B =-50mA			-1.5	V
V _{BE}	Base-emitter on voltage	I _C =-0.5A; V _{CE} =-10V		-0.75	-0.85	V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-1mA; I _E =0	-150			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-5mA; I _B =0	-150			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-1mA; I _C =0	-5			V
I _{CBO}	Collector cut-off current	V _{CB} =-120V; I _E =0			-10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-10	μA
h _{FE}	DC current gain	I _C =-0.5A; V _{CE} =-10V	40		140	
C _{OB}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		55		pF
f _T	Transition frequency	I _C =-0.5A; V _{CE} =-10V		4		MHz

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PACKAGE OUTLINE

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

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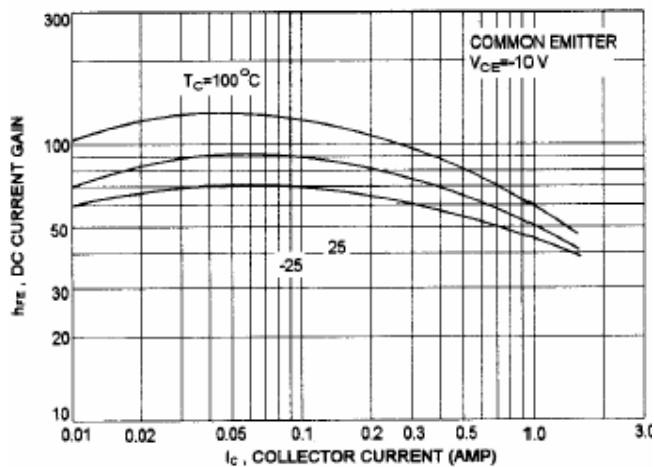


Fig.3 DC current Gain

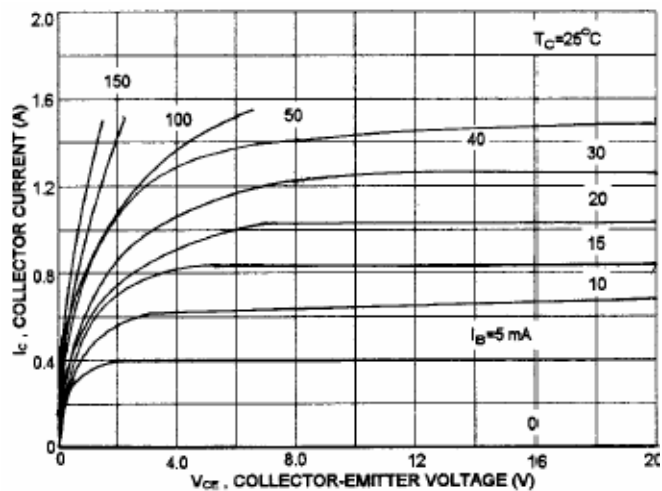


Fig.5 Static Characteristic

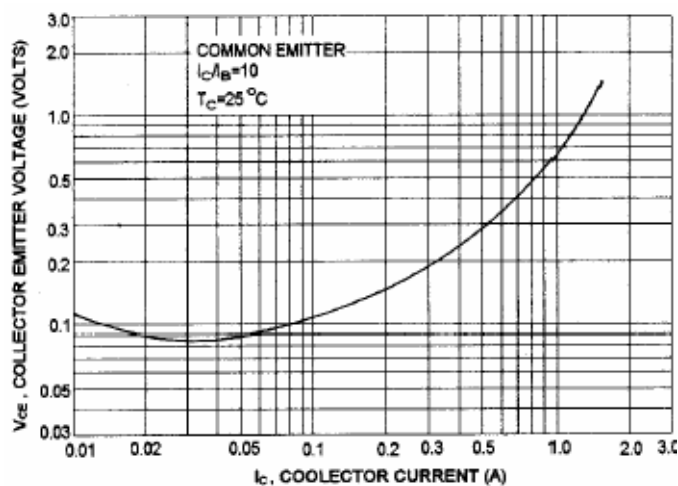


Fig.4 Collector-Emitter Saturation Voltage

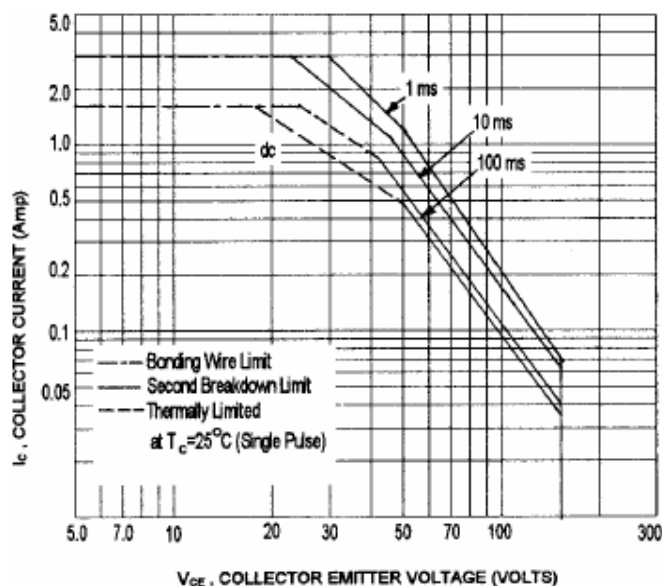


Fig.6 Safe Operating Area