

Silicon PNP Power Transistors

2SB834

DESCRIPTION

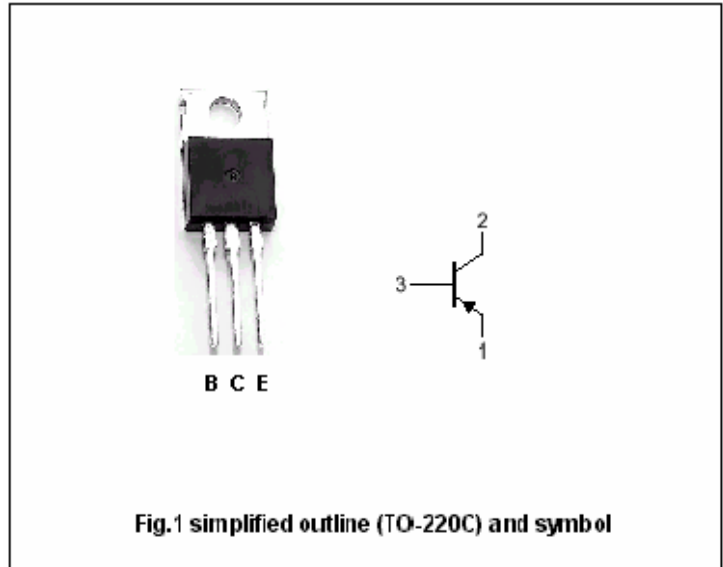
- With TO-220 package
- Low collector saturation voltage
- Complement to type 2SD880

APPLICATIONS

- Audio frequency power amplifier

PINNING

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-3	A
I_B	Base current		-0.5	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	1.5	W
		$T_C=25^\circ\text{C}$	30	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CE0}$	Collector-emitter breakdown voltage	$I_C=-50mA$; $I_B=0$	-60			V
V_{BE}	Base-emitter on voltage	$I_C=-0.5A$; $V_{CE}=-5V$		-0.7	-1.0	V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-3A$; $I_B=-0.3A$		-0.5	-1.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=-60V$; $I_E=0$			-0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=-7V$; $I_C=0$			-0.1	mA
h_{FE-1}	DC current gain	$I_C=-0.5A$; $V_{CE}=-5V$	60		200	
h_{FE-2}	DC current gain	$I_C=-3A$; $V_{CE}=-5V$	20			
C_{ob}	Collector output capacitance	$I_E=0$; $V_{CB}=-10V$; $f=1MHz$		150		pF
f_T	Transition frequency	$I_C=-0.5A$; $V_{CE}=-5V$		9		MHz

Switching times

t_{on}	Turn-on time	$V_{CC}=-30V$; $R_L=15\Omega$ $I_{B1}=-I_{B2}=-0.2A$		0.4		μs
t_s	Storage time			1.7		μs
t_f	Fall time			0.5		μs

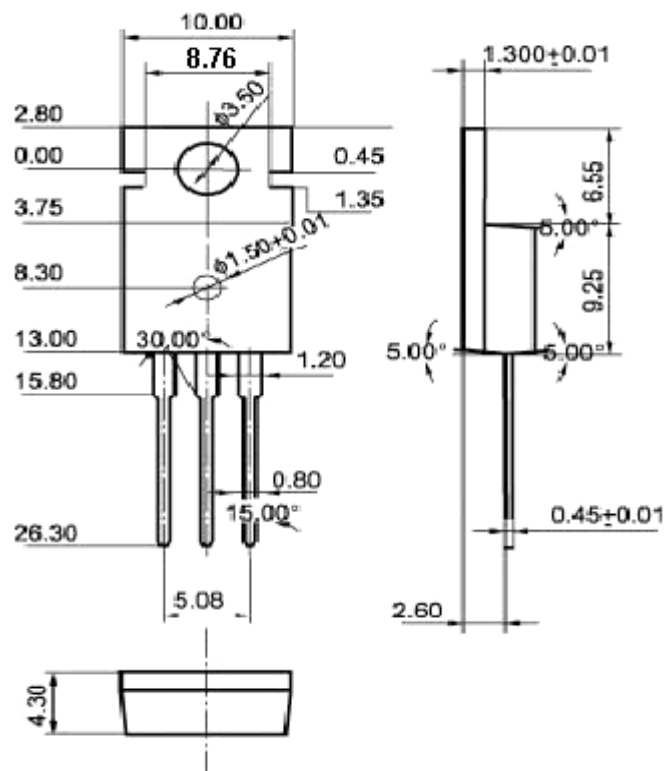
◆ h_{FE-1} classifications

O	Y
60-120	100-200

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PACKAGE OUTLINE

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

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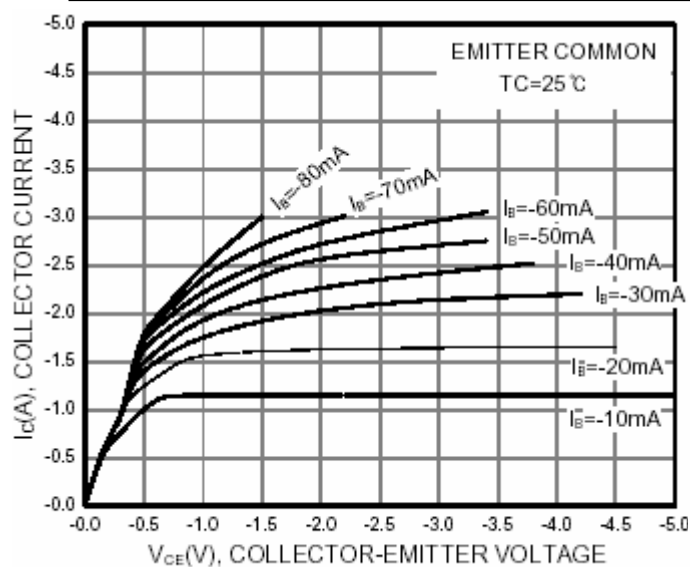


Fig.3 Static Characteristic

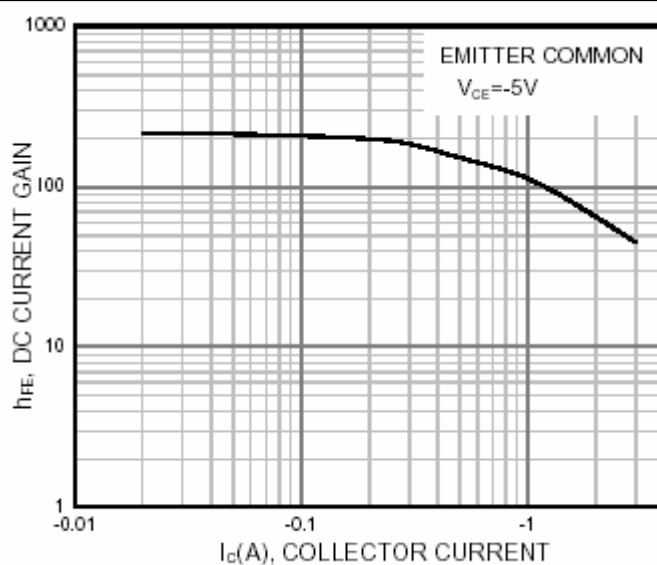


Fig.4 DC current Gain

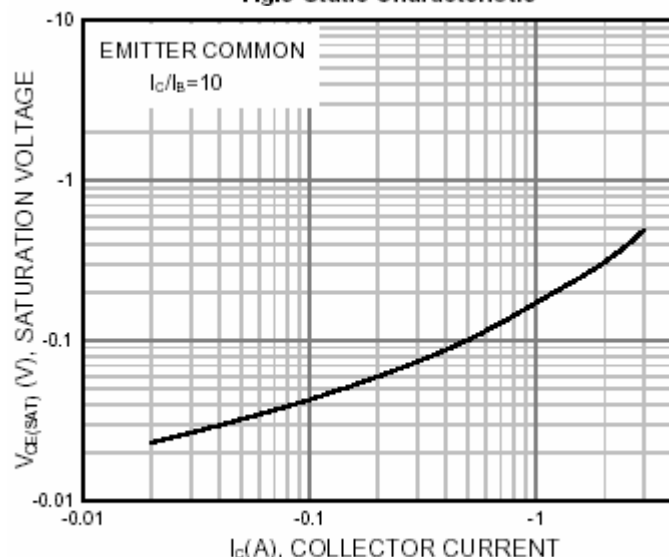


Fig.5 Collector-Emitter Saturation Voltage

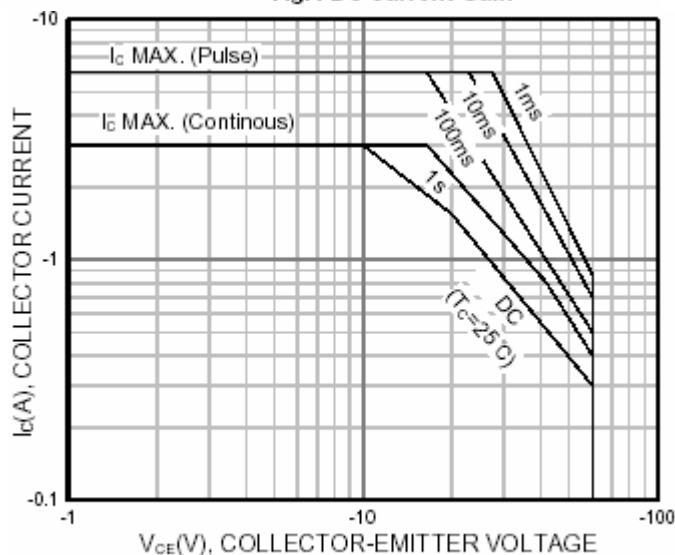


Fig.6 Safe Operating Area

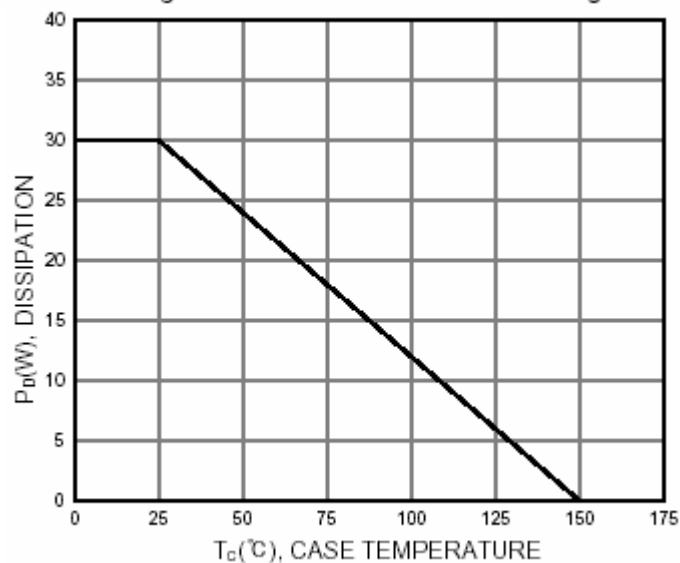


Fig.7 Power Derating