Silicon PNP Power Transistors 2SB776

DESCRIPTION

- With TO-3PN package
- Complement to type 2SD896
- Wide area of safe operation

APPLICATIONS

- 100V/7A, AF 40W output applications

PINNING

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

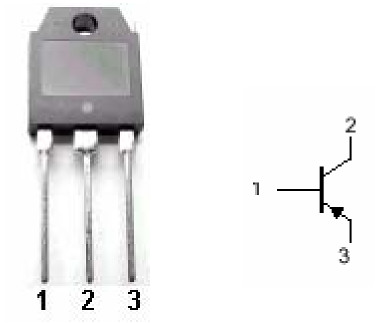

Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Tc=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-100	V
V_{EBO}	Emitter-base voltage	Open collector	-6	V
I_C	Collector current (DC)		-7	A
I_{CM}	Collector current-peak		-11	A
P_C	Collector power dissipation	T_C=25℃	70	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=-50mA ;R_{BE}=∞	-100			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=-5mA ;I_E=0	-120			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=-5mA ;I_C=0	-6			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=-4A ;I_B=-0.4A		-0.9	-2.0	V
V_{BE}	Base-emitter on voltage	I_C=-1A;V_{CE}=-5V			-1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=-80V I_E=0			-0.1	mA
I_{EBO}	Emitter cut-off current	V_{EB}=-4V; I_C=0			-0.1	mA
h_{FE-1}	DC current gain	I_C=-1A ; V_{CE}=-5V	60		200	
h_{FE-2}	DC current gain	I_C=-4A ; V_{CE}=-5V	20			
f_T	Transition frequency	I_C=-1A ; V_{CE}=-5V		15		MHz
C_{OB}	Collector output capacitance	f=1MHz;V_{CB}=10V		200		pF

Switching times

t_{on}	Turn-on time	I_C=-1.0A; I_{B1}=-I_{B2}=-0.1A R_L=20Ω;V_{CC}=20V		0.2		μs
t_{stg}	Storage time			1.2		μs
t_f	Fall time			0.3		μs

◆ h_{FE-1} Classifications

D	E
60-120	100-200

PACKAGE OUTLINE

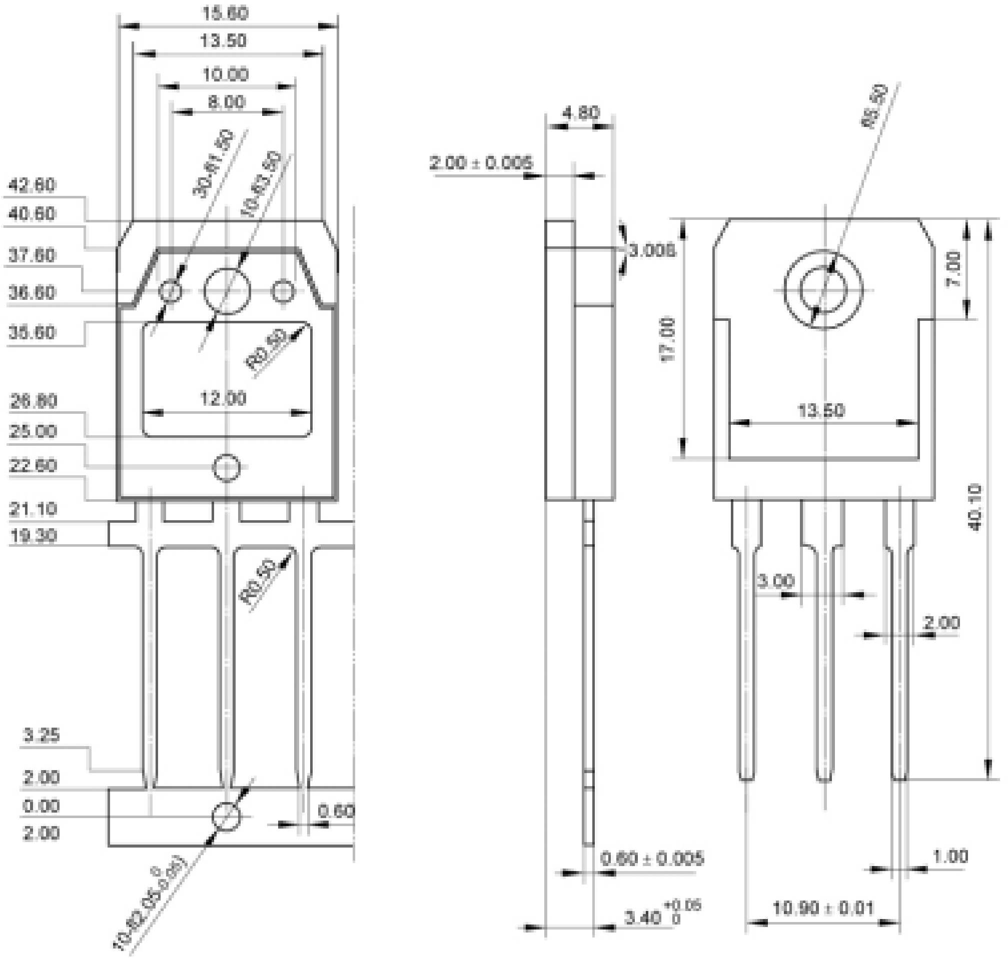

Fig.2 outline dimensions

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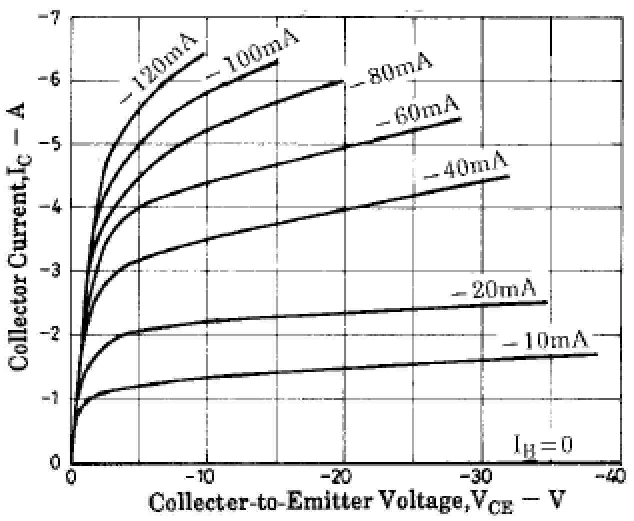

Fig.3 Static Characteristic

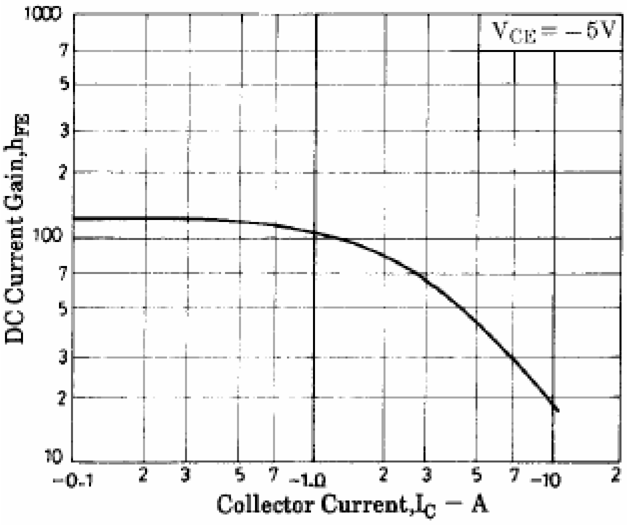

Fig.4 DC current Gain

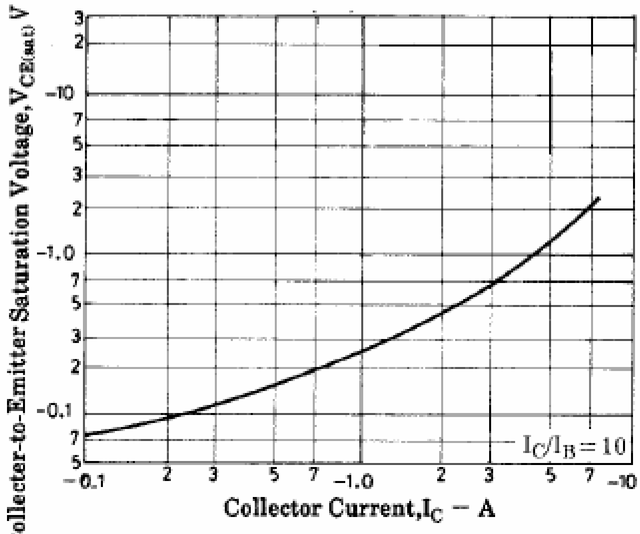

Fig.5 Collector-Emitter Saturation Voltage

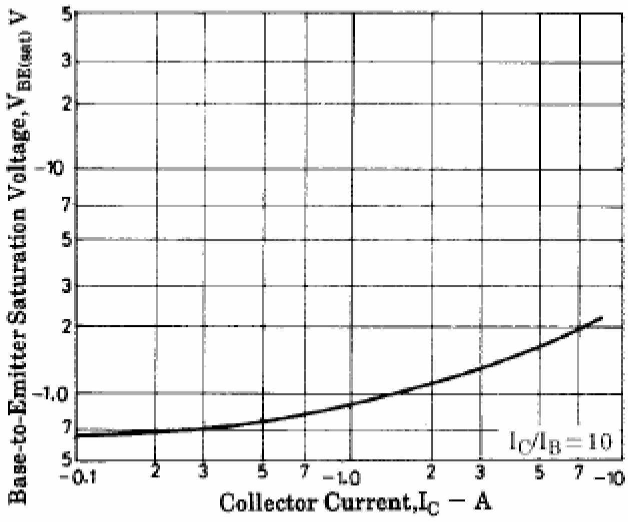

Fig.6 Base-Emitter Saturation Voltage

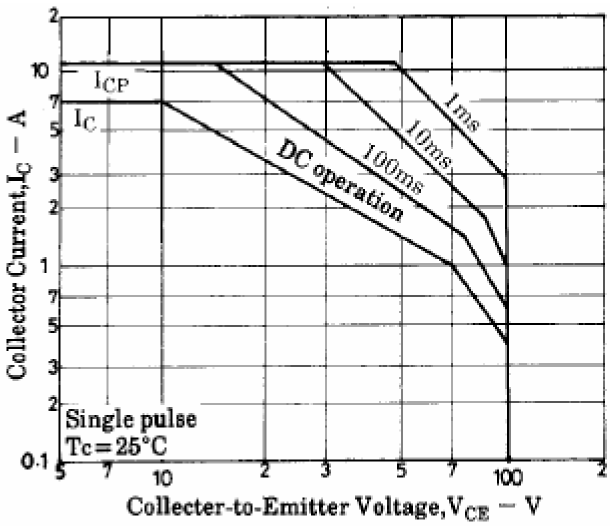

Fig.7 Safe Operating Area