

**Silicon PNP Power Transistors**

**2SB778**

**DESCRIPTION**

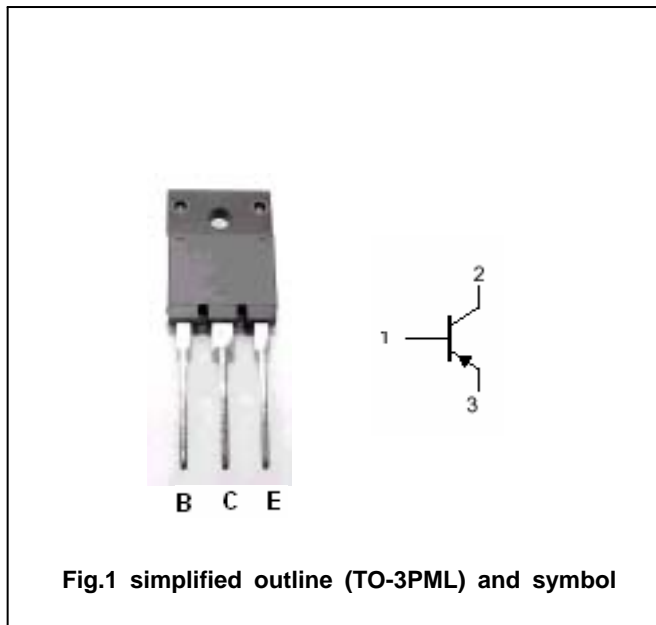
- With TO-3PML package
- Complement to type 2SD998

**APPLICATIONS**

- High power amplifier applications
- Recommended for 45~50W audio frequency amplifier output stage

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings (Ta=25 )**

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-120	V
$V_{CEO}$	Collector-emitter voltage	Open base	-120	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-10	A
$I_B$	Base current		-1.0	A
$P_C$	Collector power dissipation	$T_C=25$	80	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-50mA ; I <sub>B</sub> =0	-120			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-5A ; I <sub>B</sub> =-0.5A			-2.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-5V			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-120V ; I <sub>E</sub> =0			-10	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V ; I <sub>C</sub> =0			-10	μ A
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V	55		160	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V		10		MHz
C <sub>OB</sub>	Collector output capacitance	I <sub>E</sub> =0 ; f=1MHz ; V <sub>CB</sub> =-10V		280		pF

◆ h<sub>FE</sub> Classifications

R	O
55-110	80-160



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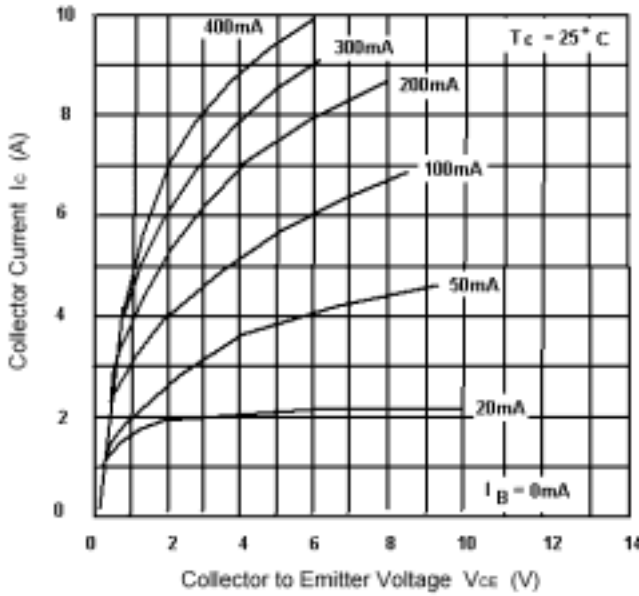


Fig.3 Static Characteristic

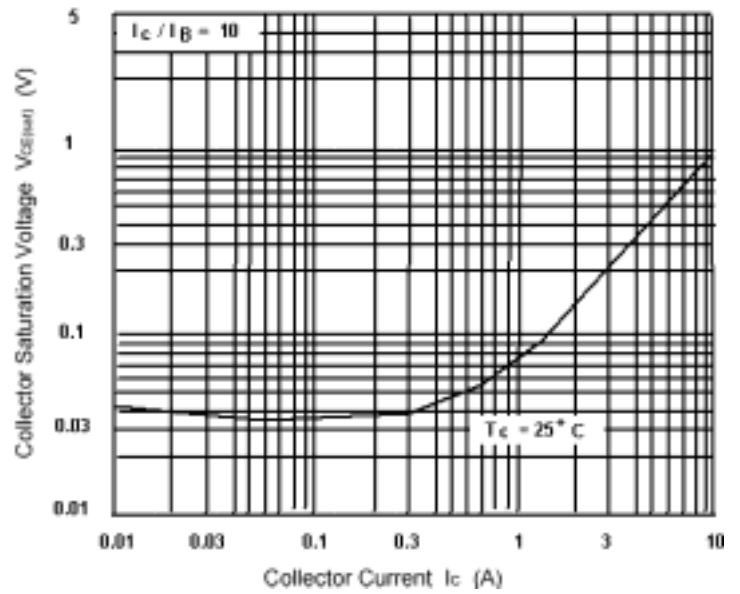


Fig.4 Collector-Emitter Saturation Voltage

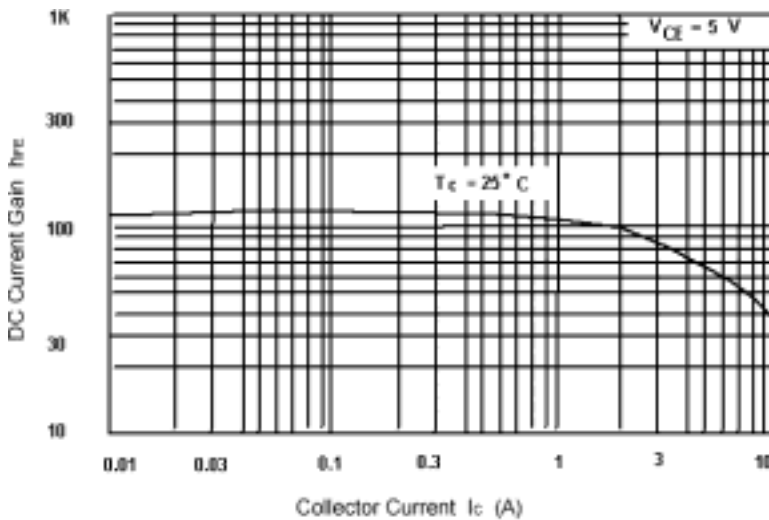


Fig.5 DC current Gain

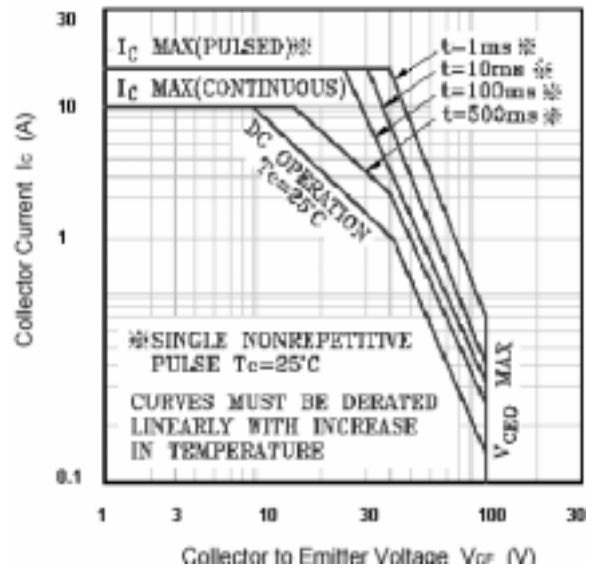


Fig.6 Safe Operating Area