

Silicon NPN Power Transistors

2SD998

DESCRIPTION

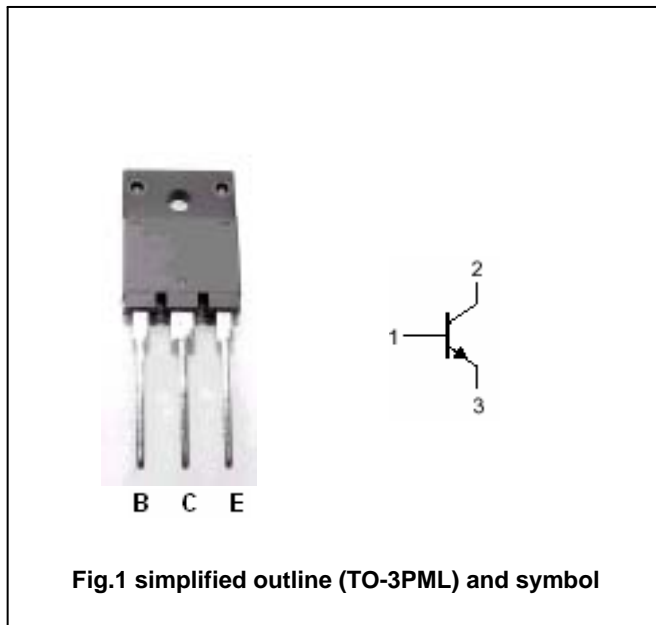
- With TO-3PML package
- Complement to type 2SB778

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 dissipation	$T_C=25$	80	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA ; I _B =0	120			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A			2.5	V
V _{BE}	Base-emitter on voltage	I _C =0.5A; V _{CE} =5V			1.5	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 =1A ; V _{CE} =5V	55		160	
f _T	Transition frequency	I _C =1A ; V _{CE} =5V		12		MHz
C _{OB}	Collector output capacitance	f=1MHz; V _{CB} =10V		170		pF

◆ h_{FE} Classifications

R	O
55-110	80-160

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PACKAGE OUTLINE

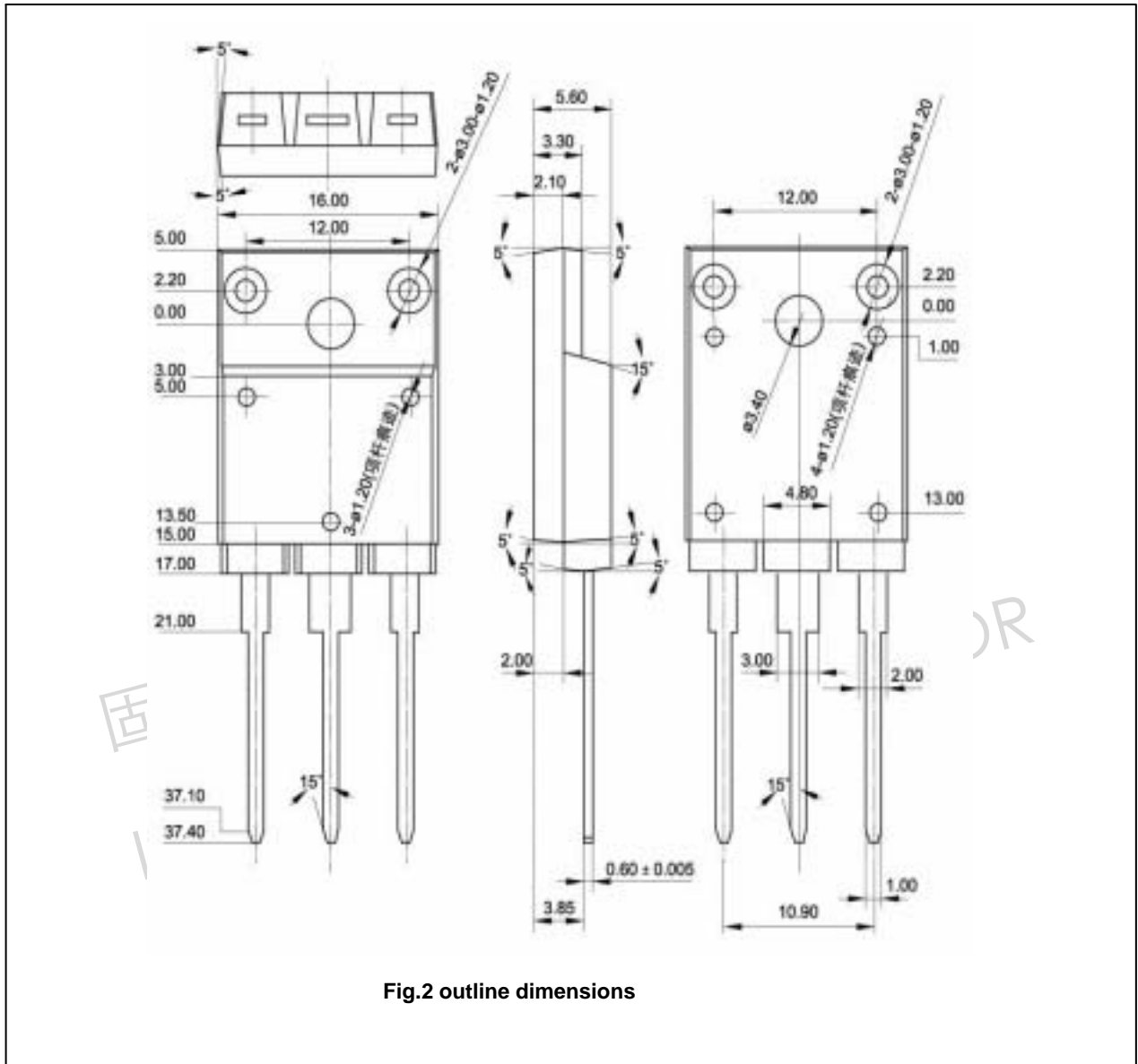


Fig.2 outline dimensions

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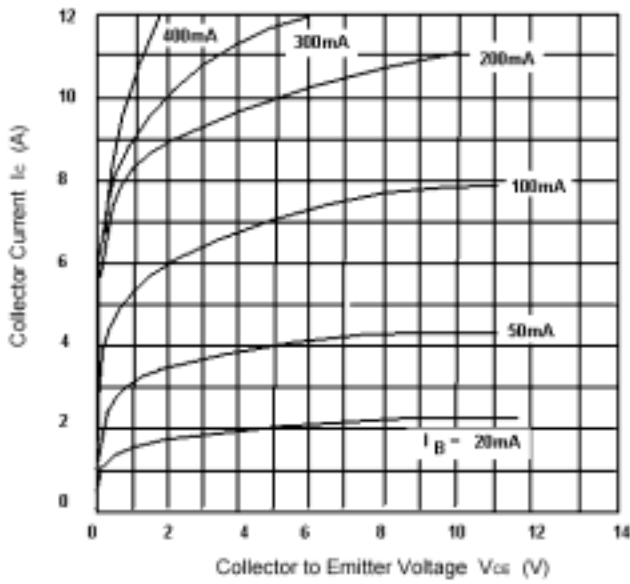


Fig.3 Static Characteristic

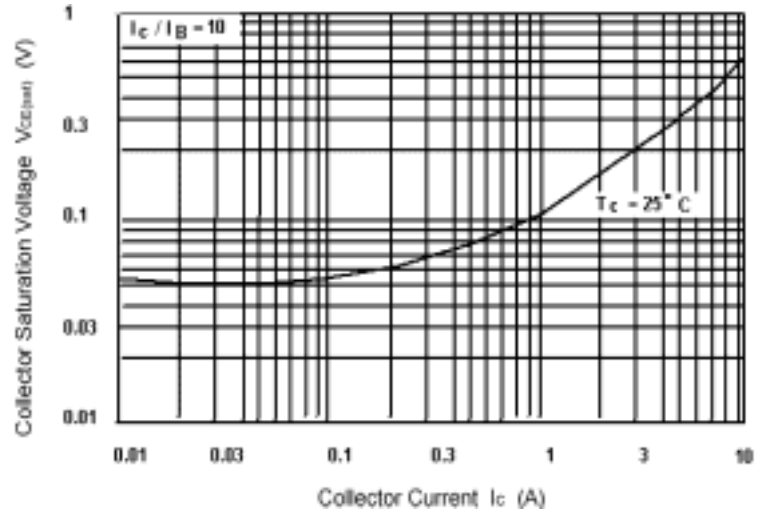


Fig.4 Collector-Emitter Saturation Voltage

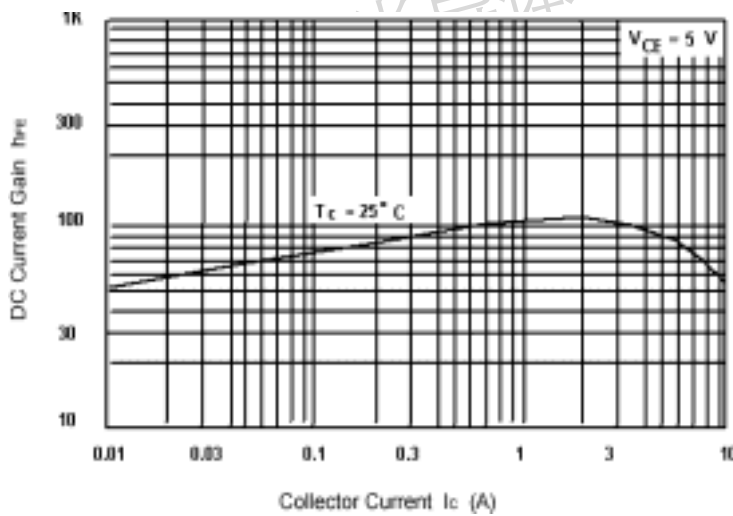


Fig.5 DC current Gain

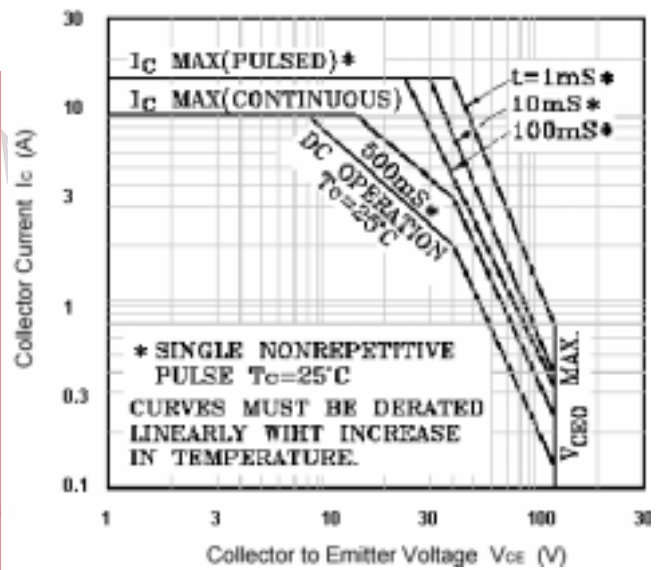


Fig.6 Safe Operating Area