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

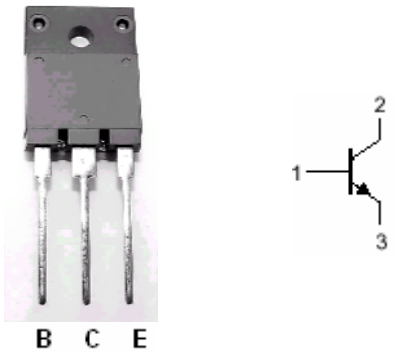


Fig.1 simplified outline (TO-3PML) and symbol

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

Tj=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

PACKAGE OUTLINE

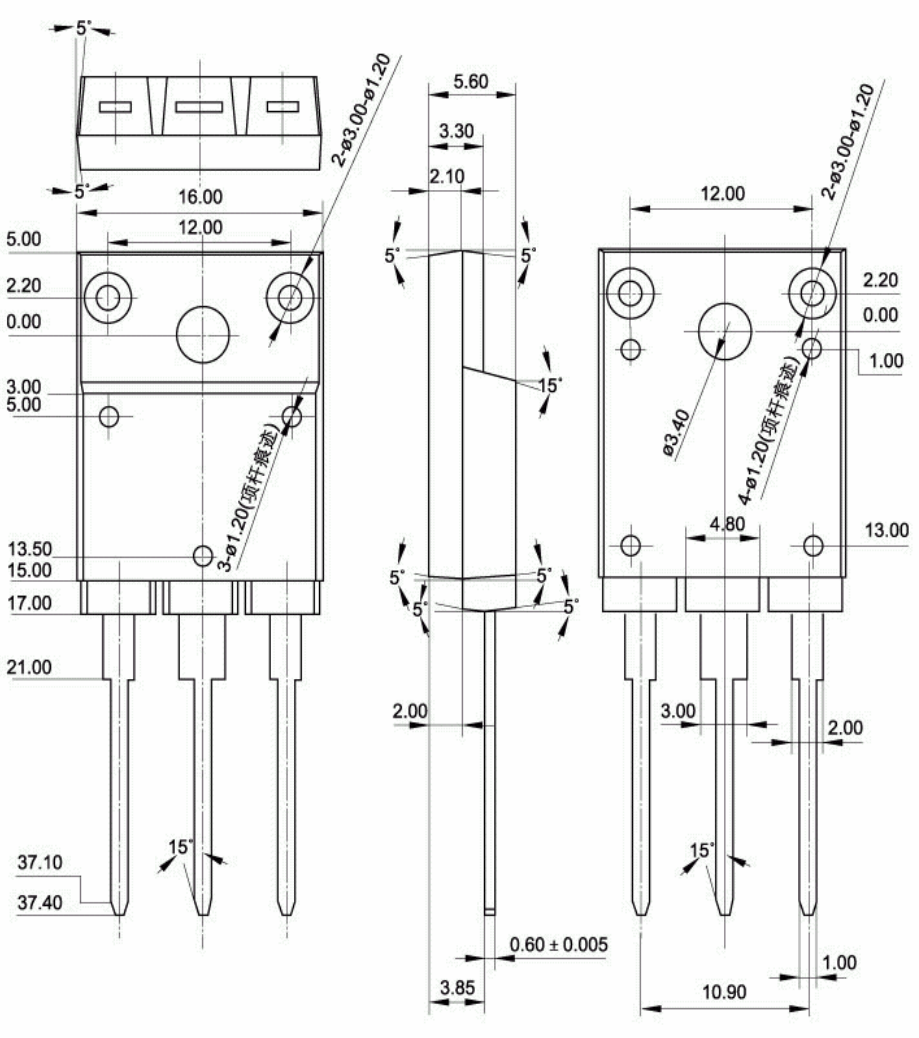


Fig.2 outline dimensions

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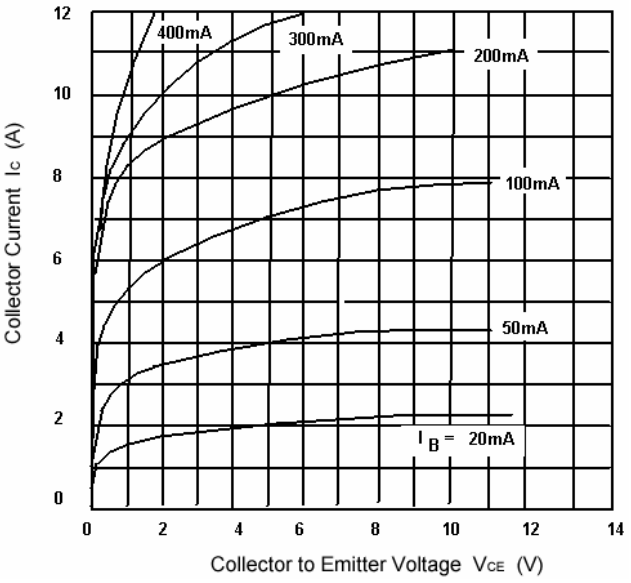


Fig.3 Static Characteristic

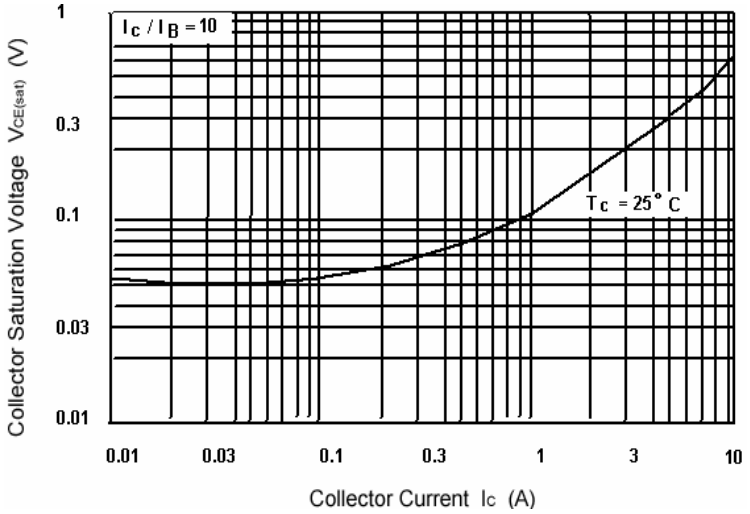


Fig.4 Collector-Emitter Saturation Voltage

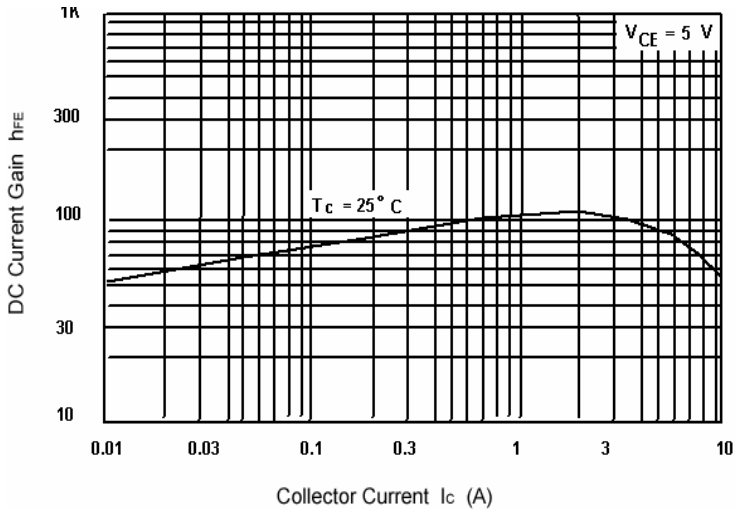


Fig.5 DC current Gain

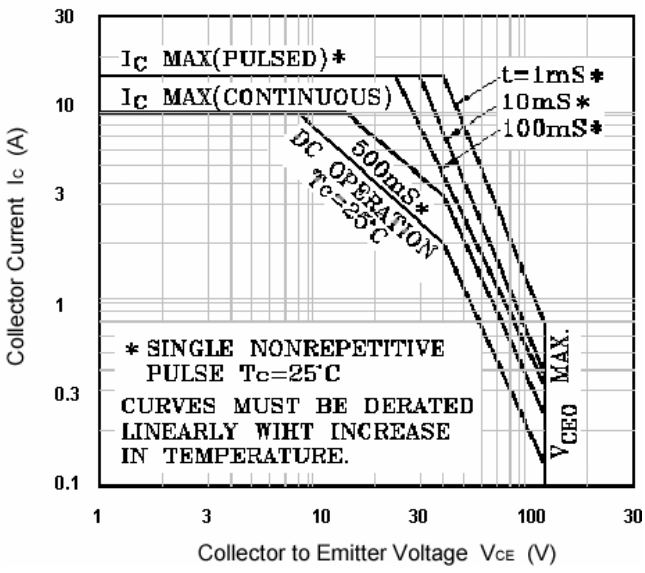


Fig.6 Safe Operating Area