

Silicon NPN Power Transistors

2SD998

DESCRIPTION

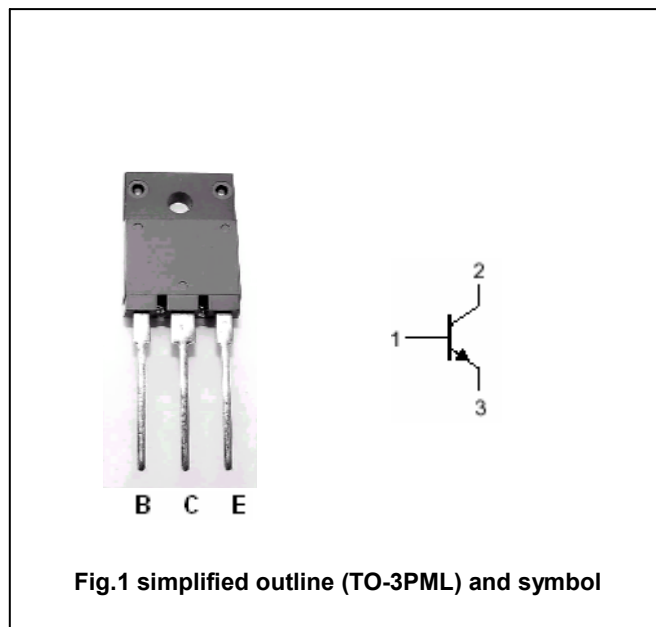
- With TO-3PML package
- Complement to type 2SB778

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 ($T_a=25^\circ\text{C}$)

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	$T_C=25^\circ\text{C}$	80	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors**2SD998****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

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Fig.2 outline dimensions

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