

**Silicon NPN Power Transistors**

**2SC1098 2SC1098A**

**DESCRIPTION**

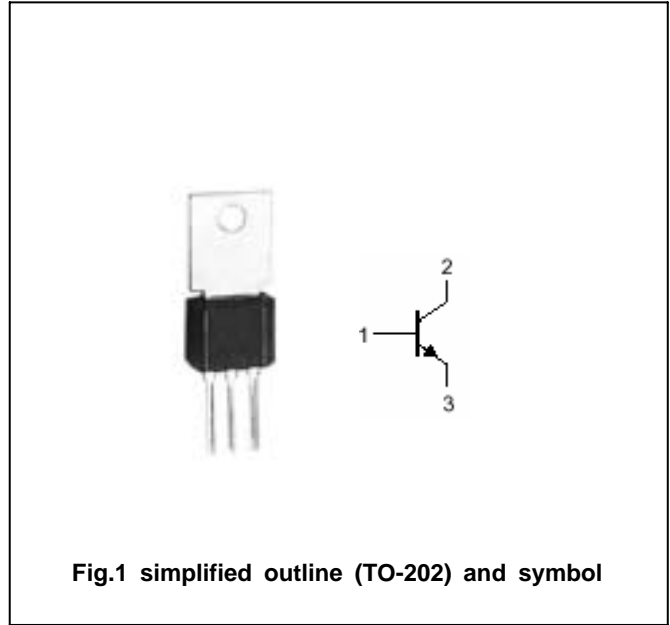
- With TO-202 package
- High Voltage
- High transition frequency

**APPLICATIONS**

- Audio frequency power amplifier
- Low speed switching
- Suitable for output stages of 5~17W small stereo sets

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	70	V
$V_{CEO}$	Collector-emitter voltage	2SC1098	45	V
		2SC1098A	60	
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		3	A
$I_{CM}$	Collector current-peak		5	A
$I_B$	Base current		0.6	A
$P_T$	Total power dissipation	$T_a=25$	1.2	W
		$T_C=25$	10	
$T_j$	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>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =1.5A; I <sub>B</sub> =0.15 A			2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage		I <sub>C</sub> =1.5A; I <sub>B</sub> =0.15 A			2.0	V
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SC1098	I <sub>C</sub> =10mA; I <sub>B</sub> =0	45			V
		2SC1098A		60			
h <sub>FE-1</sub>	DC current gain		I <sub>C</sub> =20mA; V <sub>CE</sub> =5V	20			
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =0.5A; V <sub>CE</sub> =5V	40		250	
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =45V; I <sub>E</sub> =0			1.0	μ A
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =3V; I <sub>C</sub> =0			1.0	μ A
C <sub>OB</sub>	Output capacitance		I <sub>E</sub> =0; V <sub>CB</sub> =10V; f=1MHz		40		pF
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =0.1A; V <sub>CE</sub> =5V		60		MHz

◆ h<sub>FE-2</sub> Classifications

N	M	L	K
40-60	50-100	80-160	120-250

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PACKAGE OUTLINE

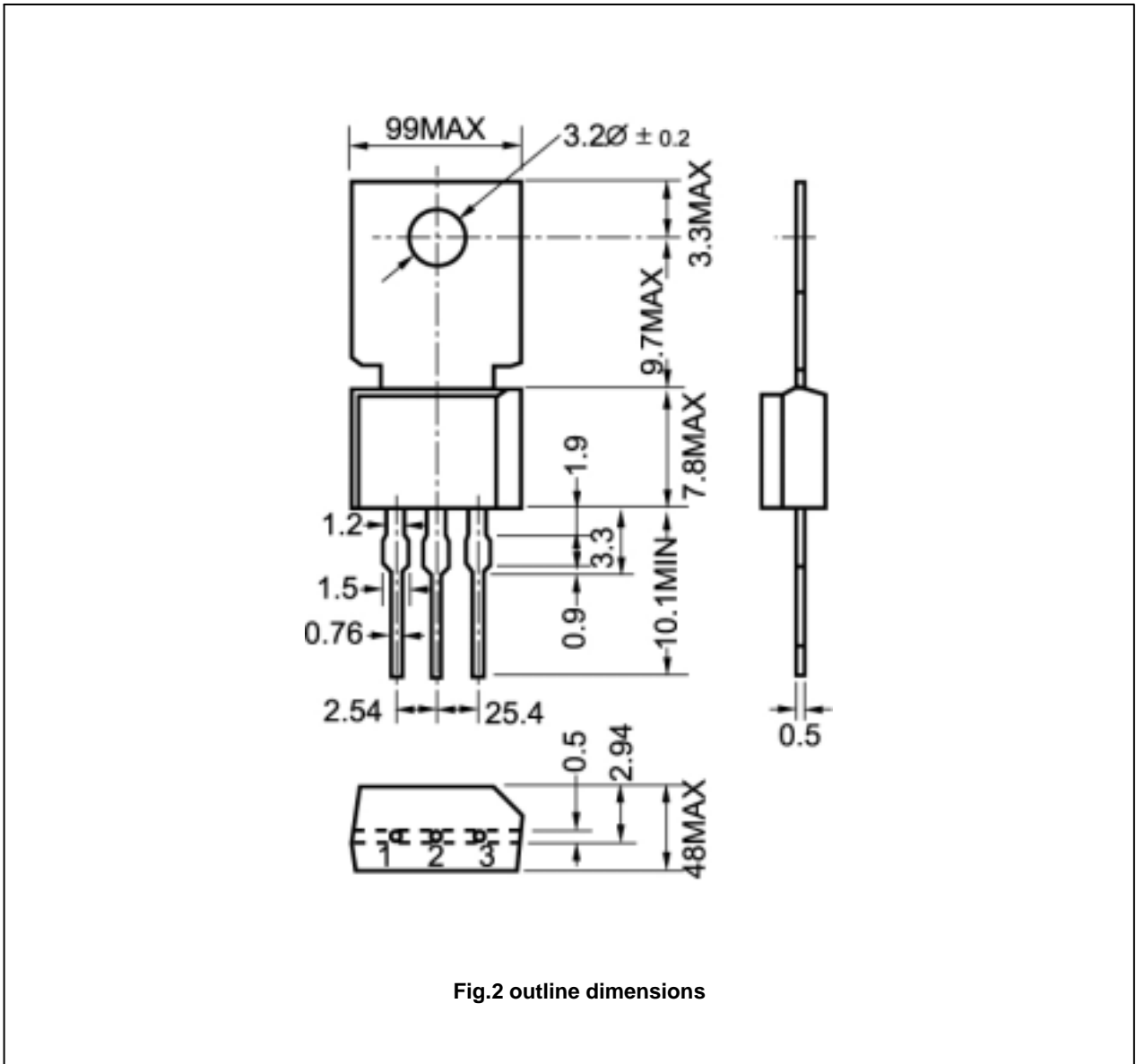


Fig.2 outline dimensions