

Silicon NPN Power Transistors

2SC1098 2SC1098A

DESCRIPTION

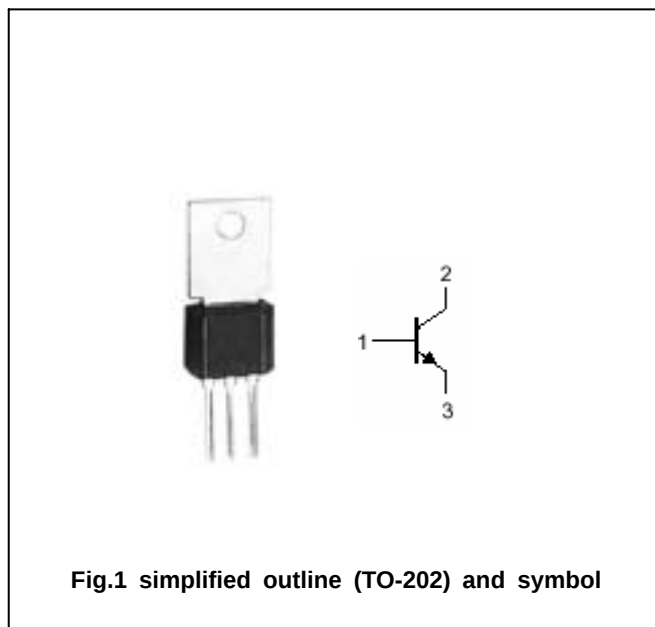
- With TO-202 package
- High Voltage
- High transition frequency

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage		Open emitter	70	V
V_{CEO}	Collector-emitter voltage	2SC1098	Open base	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_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage		I _C =1.5A; I _B =0.15 A			2.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =1.5A; I _B =0.15 A			2.0	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SC1098	I _C =10mA; I _B =0	45			V
		2SC1098A		60			
h _{FE-1}	DC current gain		I _C =20mA ; V _{CE} =5V	20			
h _{FE-2}	DC current gain		I _C =0.5A ; V _{CE} =5V	40		250	
I _{CBO}	Collector cut-off current		V _{CB} =45V ; I _E =0			1.0	μ A
I _{EBO}	Emitter cut-off current		V _{EB} =3V; I _C =0			1.0	μ A
C _{OB}	Output capacitance		I _E =0; V _{CB} =10V; f=1MHz		40		pF
f _T	Transition frequency		I _C =0.1A ; V _{CE} =5V		60		MHz

◆ h_{FE-2} Classifications

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

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PACKAGE OUTLINE

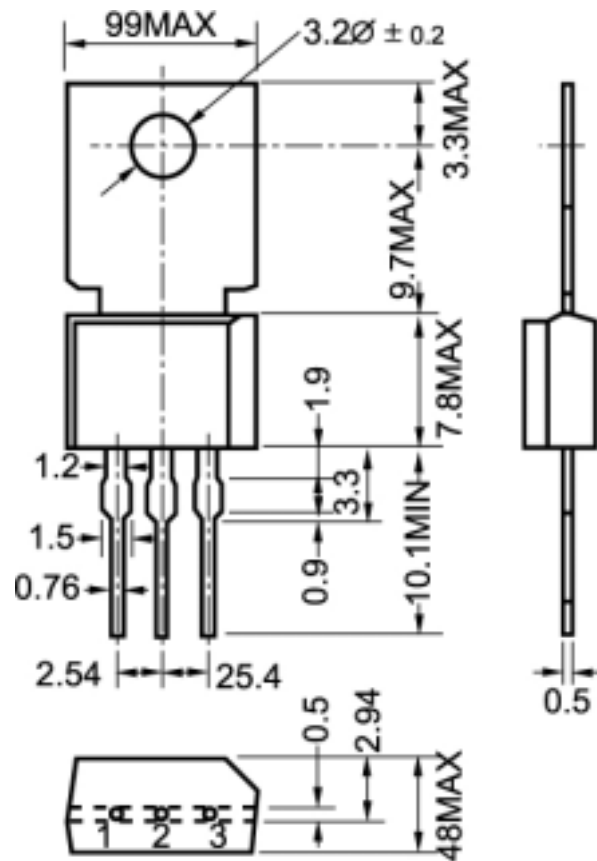


Fig.2 outline dimensions