

Silicon NPN Power Transistors

2SC1096

DESCRIPTION

- With TO-202 package
- Low breakdown voltage
- High current
- High f_T

APPLICATIONS

- For audio frequency power amplifier and low speed switching applications
- Suitable for output stages of 3 to 5 watts car radio sets and car stereo

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

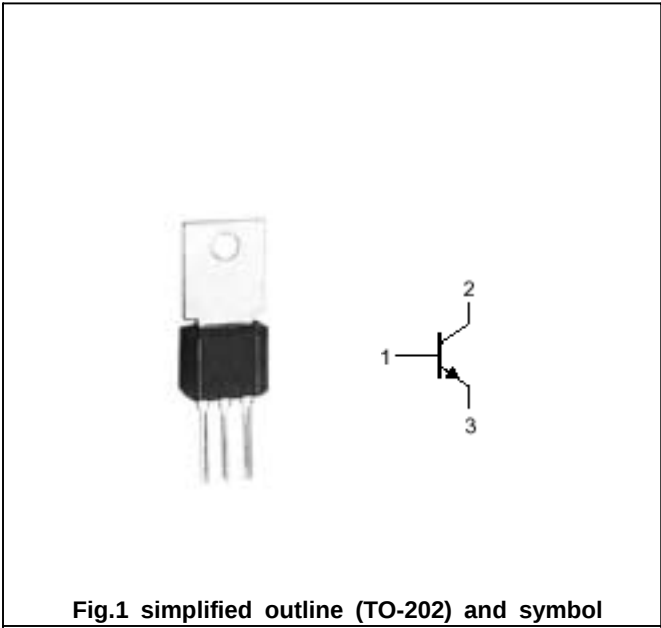


Fig.1 simplified outline (TO-202) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	40	V
V_{CEO}	Collector-emitter voltage	Open base	30	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		3	A
I_{CM}	Collector current-peak		6	A
I_B	Base current		0.6	A
P_C	Collector 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 =3A ; I _B =0.3A			2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A ; I _B =0.3A			2.0	V
V _{CEO}	Collector-emitter breakdown voltage	I _C =10mA; I _B =0	30			V
I _{CBO}	Collector cut-off current	V _{CB} =30V; I _E =0			1.0	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =3V; I _C =0			1.0	μ A
h _{FE-1}	DC current gain	I _C =20mA ; V _{CE} =5V	20			
h _{FE-2}	DC current gain	I _C =1.0A ; V _{CE} =5V	40		250	
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1.0MHz		55		pF
f _T	Transition frequency	I _C =0.1A ; V _{CE} =5V		65		MHz

◆ h_{FE-1} classifications

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

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PACKAGE OUTLINE

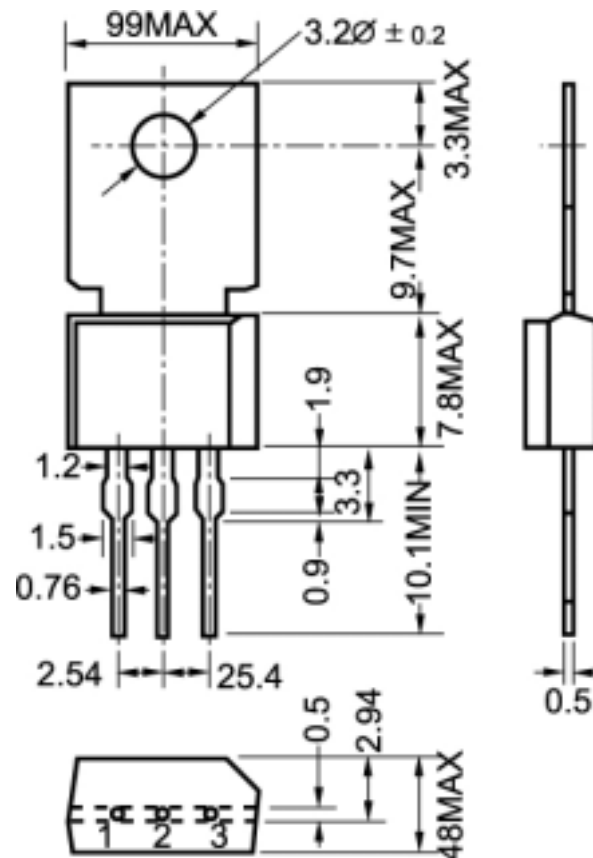


Fig.2 outline dimensions