

TO-92 Plastic-Encapsulate Transistors

2SC3199 TRANSISTOR (NPN)

FEATURES

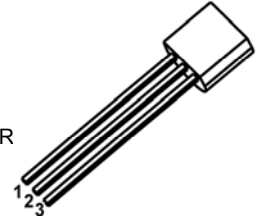
- High Current Capability
- High DC Current Gain
- Small Package

APPLICATIONS

- Audio Amplifier Applications
- AM Amplifier Applications

TO - 92

1. EMITTER
2. COLLECTOR
3. BASE



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	50	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	0.15	A
P _C	Collector Power Dissipation	400	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	312	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 0.1mA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =0.1mA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =50V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =6V, I _C =2mA	70		700	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =10mA			0.25	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			3.5	pF
Transition frequency	f _T	V _{CE} =10V, I _C =1mA	80			MHz

CLASSIFICATION OF h_{FE}

RANK	O	Y	GR	BL
RANGE	70-140	120-240	200-400	300-700