2SC 3199
2SC 3199Ⓛ

=C2458

SILICON NPN TRANSISTOR
EPITAXIAL PLANAR TYPE (PCT PROCESS)

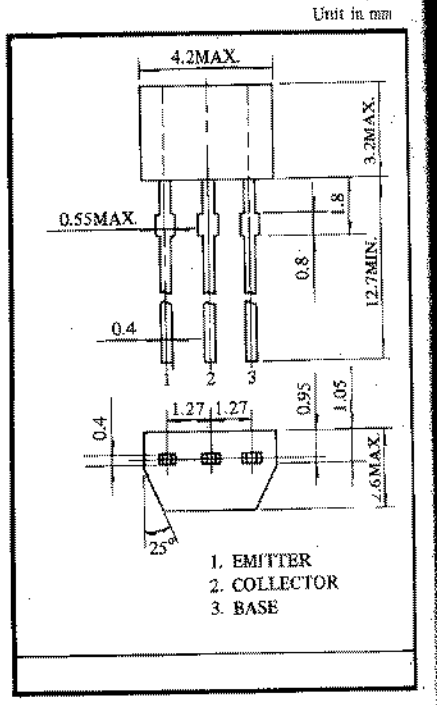
APPLICATAIONS

- Audio Amplifier Applications.
- AM Amplifier Applications.

FEATURES

- High Current Capability : I_C=150mA (Max.).
- High DC Current Gain : h_{FE}=70~700.
- Excellent h_{FE} Linearity : $h_{FE}(0.1mA)/h_{FE}(2mA)$=0.95 (Typ.).
- Low Noise : NF=1dB (Typ.), 10dB (Max.).
- Low Nosise 2SA3199 NF=1dB (TYP), 10dB (Max).
  2SA3199Ⓛ NF=0.2dB (TYP), 3dB (Max.)
- Complementary to 2SA1267/2SA1267Ⓛ.
- Small Package.

Unit in mm



■ MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Emitter Current	I_E	−150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	125	℃
Storge Temperature Range	T_{stg}	-55~125	℃

■ ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
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		$h_{FE(Note)}$	V_{CE}=6V, I_C=2mA	70	—	700	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=100mA, I_B=10mA	—	0.1	0.25	V
Transition Frequency		f_T	V_{CE}=10V, I_C=1mA	80	—	—	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	—	2.0	3.5	pF
Noise Figure	2SC3199	NF	V_{CE}=6V, I_C=0.1mA	–	1	10	dB
	2SC3199Ⓛ		f=1kHz, Rg=10kΩ	–	0.2	3	

■ NOTE: According to h_{FE} Classified as follows.

O	70~140	Y	120~240	GR	200~400	BL	350~700