



# INTEGRATED CIRCUIT

## TECHNICAL DATA

# TA7129AP

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT

SILICON MONOLITHIC

VARIOUS HIGH QUALITY PRI-AMPLIFIER.

VOLTAGE AMPLIFIER.

- Low Noise :  $V_{NI}=0.8\mu V_{rms}(Typ.)$
- High Open Loop Voltage Gain :  $G_{V0}=92dB(Typ.)$
- Low Distortion :  $THD=0.1\%(Max.)$   
at  $V_{OUT}=7V_{rms}$ ,  $G_V=40dB$ ,  $f=1kHz$ .
- The Outer Emitter Resistance of Top Stage Makes, it Possible to get less deviation, better Temperature Characteristic, because the Closed Loop Voltage Gain is decided by the Outer circuit only.

### MAXIMUM RATINGS ( $T_a=25^\circ C$ )

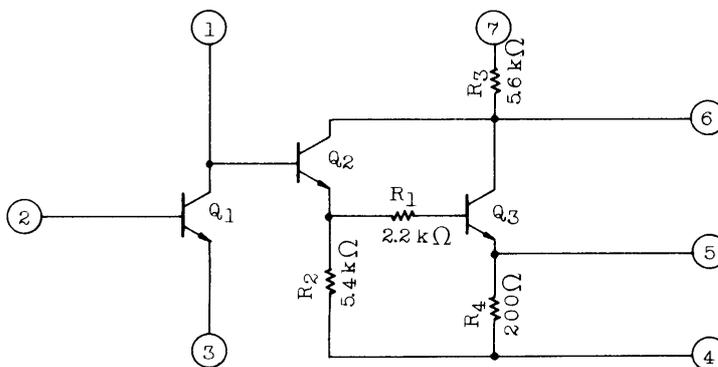
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	VCC	42	V
Power Dissipation (Note)	P <sub>D</sub>	400	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ 75	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 125	°C

(Note) Derated above  $T_a=25^\circ C$  in the proportion of  $4mW/^\circ C$ .

### ELECTRICAL CHARACTERISTICS ( $V_{CC}=35V$ , $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I <sub>CC</sub>	1	$V_{IN}=0$	-	3.5	4.7	mA
Voltage Gain (Open Loop)	G <sub>V0</sub>	1	$V_{IN}=-85dBm$ , $f=1kHz$	87	92	-	dB
Maximum Output Voltage	V <sub>OM</sub>	2	$f=1kHz$ , $THD=0.1\%$	7.0	9.0	-	V <sub>rms</sub>
Equivalent Input Noise Voltage	V <sub>NI</sub>	3	RIAA equalizer $R_g=2.2k\Omega$ , $f=1kHz$	-	0.8	1.5	$\mu V_{rms}$

### EQUIVALENT CIRCUIT



Unit in mm

