



INTEGRATED CIRCUIT

TECHNICAL DATA

TA7061AP

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT

SILICON MONOLITHIC

FOR FM IF AMPLIFIER

FOR TV AMPLIFIER

- High Power Gain : $G_p=69\text{dB}(\text{Typ.})$
- Good Limiter Characteristic : $V_{IN(1im)}=600\mu\text{V}(\text{Typ.})$
- High Output Voltage : $V_{OM}=800\text{mV}(\text{Typ.})$
- Wide Frequency Range : $f=1\text{kHz} \sim 20\text{MHz}$
- Operating Supply Voltage Range : $V_{CC}=6 \sim 15\text{V}$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	15	V
Input Voltage (Between Terminals 6 and 7)	V_{IN}	± 3	V
Power Dissipation (Note)	P_D	400	mW
Operating Temperature ($V_{CC}=7.5\text{V}$)	T_{opr}	$-25 \sim 75$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55 \sim 125$	$^\circ\text{C}$

Note: Derated above $T_a=25^\circ\text{C}$ in the proportion of $4\text{mW}/^\circ\text{C}$.

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

CHARACTERISTIC		SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current		I_{CC}	1	$V_{CC}=12\text{V}$	-	11	14	mA
				$V_{CC}=6\text{V}$	7.0	8.5	-	
Output Current		I_{OUT}	1	$V_{CC}=12\text{V}$	-	2.5	-	mA
Input Limiting Voltage		$V_{IN(1im)}$	2	$V_{CC}=12\text{V}$, $f=10.7\text{MHz}$	-	600	-	μV
Maximum Output Voltage		V_{OM}	2	$V_{CC}=12\text{V}$, $V_{IN}=10\text{mV}$, $f=10.7\text{MHz}$	-	800	-	mV
Power Gain		G_p	2	$V_{CC}=12\text{V}$, $f=10.7\text{MHz}$	66	69	72	dB
IF Voltage Gain		$G_v(\text{IF})$	5	$V_{CC}=12\text{V}$, $f=10.7\text{MHz}$, $50\text{dB}\mu\text{V}$	-	56	-	dB
Input Impedance	Parallel Input Resistance	r_{ip}	3	$V_{CC}=12\text{V}$, $f=10.7\text{MHz}$	-	5	-	$\text{k}\Omega$
	Parallel Input Capacitance	c_{ip}			-	6	-	pF
Output Impedance	Parallel Output Resistance	r_{op}	4	$V_{CC}=12\text{V}$, $f=10.7\text{MHz}$	-	10	-	$\text{k}\Omega$
	Parallel Output Capacitance	c_{op}			-	5	-	pF

Unit in mm

