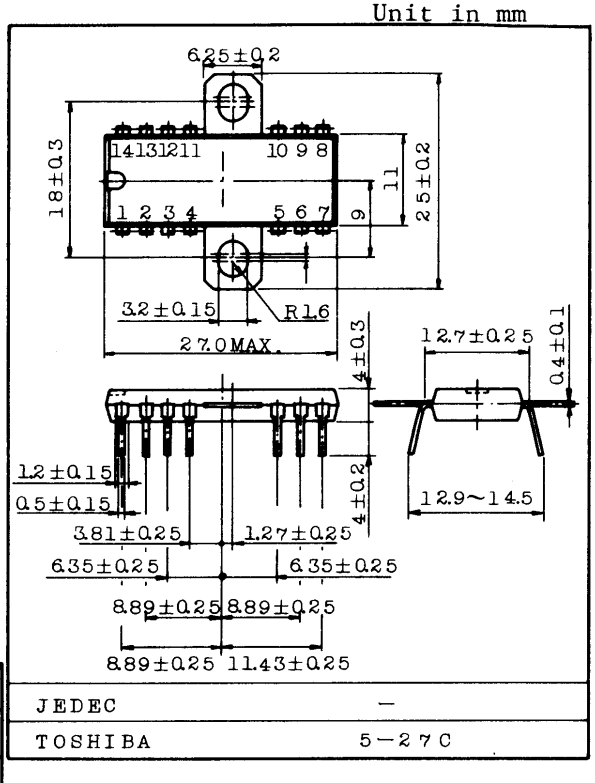
TA7203P

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT
SILICON MONOLITHIC

2W DUAL AUDIO POWER AMPLIFIER

- Dual Power Amplifier 2-Watts Per Channel Economical Type Stereo, Taperecorder Output Uses.
- Excellent Channel Separation (Typ. -55dB) and High Ripple Rejection Ratio.
- Wide Operating Supply Voltage Range : V_{CC}=8 ~ 20V
- Excellent Frequency and Thermal Stabilities.

Unit in mm



JEDEC	—
TOSHIBA	5-27C

MAXIMUM RATINGS (Ta=25°)

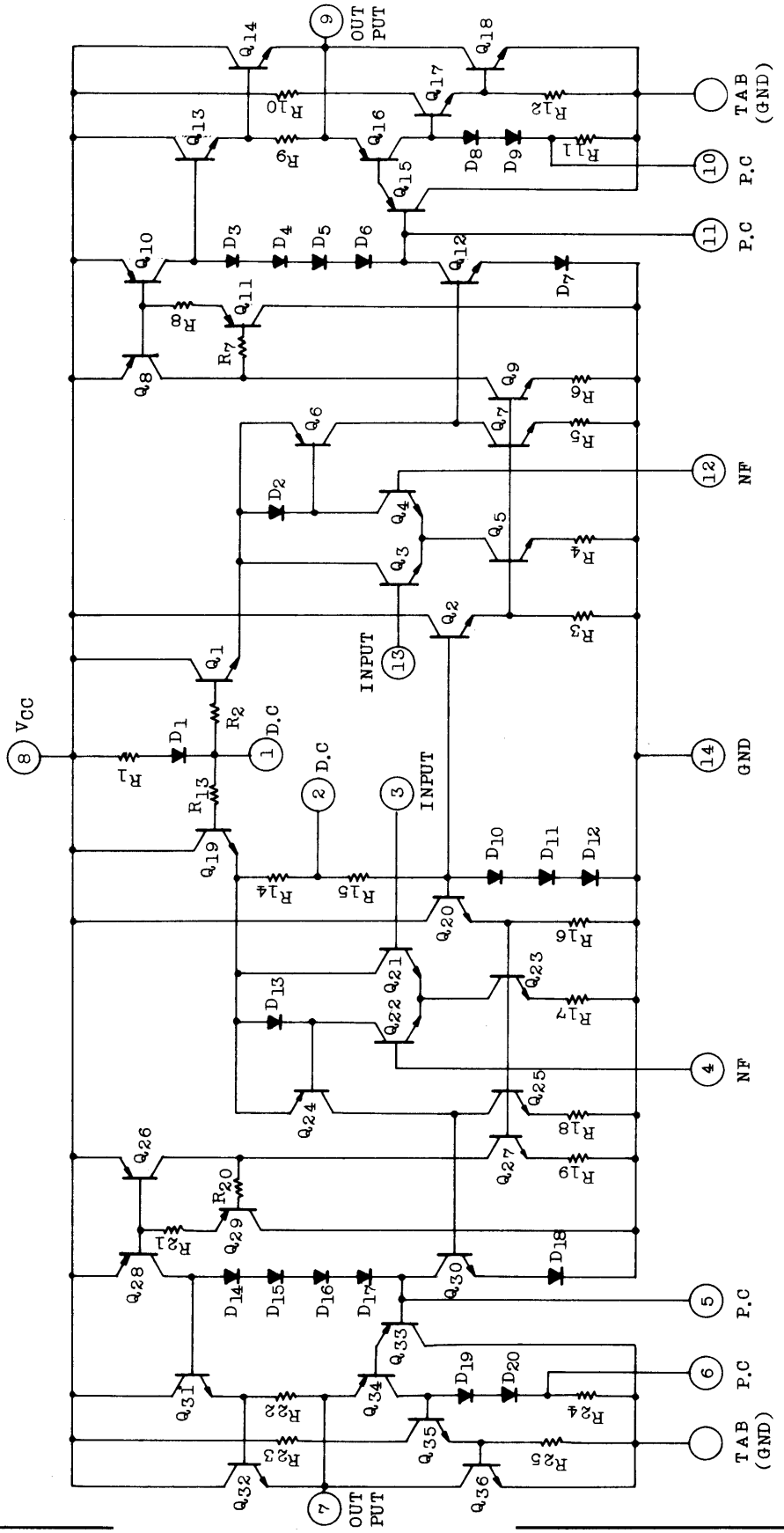
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	20	V
Output Current (Peak)	$I_{O(peak)}$	1.2 (Each channel)	A
Power Dissipation	P_D	5.0	W
Operating Temperature	T_{opr}	-20 ~ 75	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, V_{CC}=14V, R_L=8Ω, R_f=1kΩ, Ta=25°C, R_g=600Ω, f=1kHz)

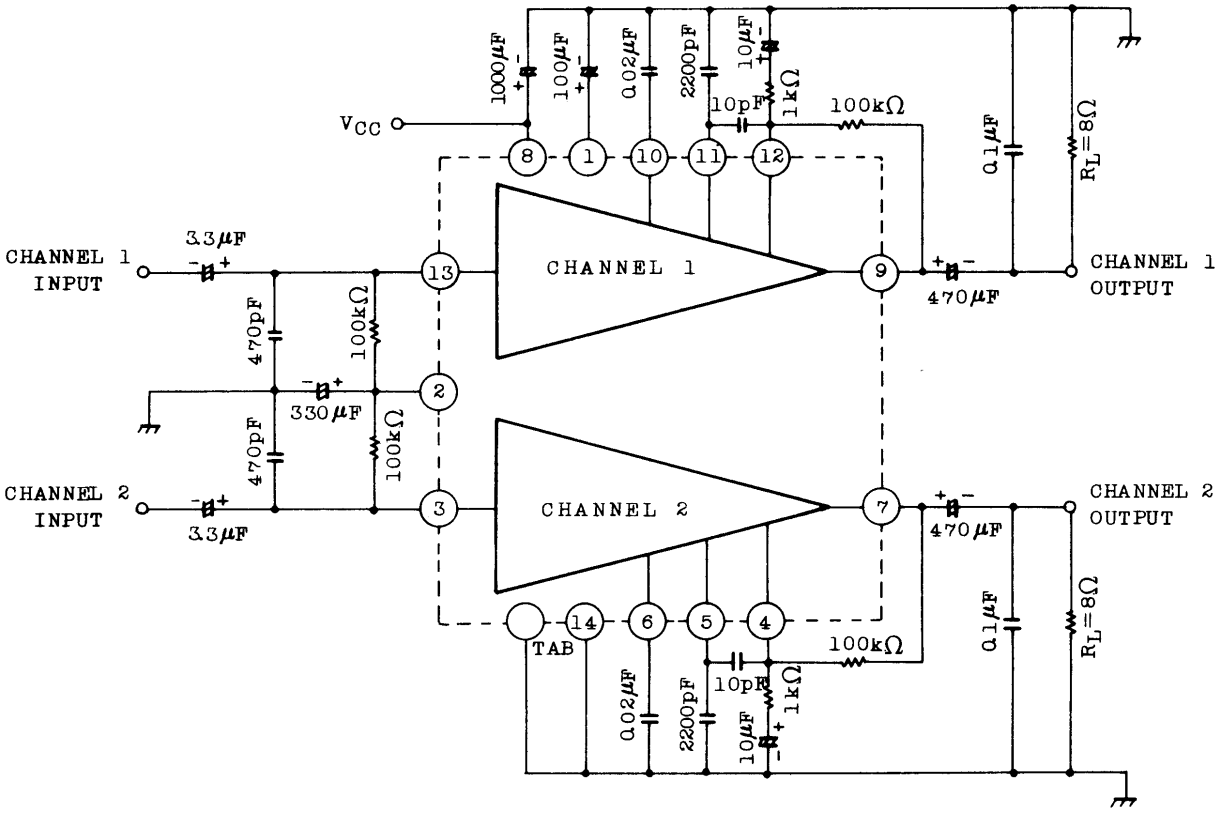
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I_{CCQ}	-	V_{CC}=14V	18	37	60	mA
			V_{CC}=20V	-	-	75	
Maximum Output Power	P_{OM}	-	THD=10%	1.5	2.0	-	W
Voltage Gain	G_V	-	R_f=0Ω, V_{IN}=0.245mV$_{rms}$	72.0	-	-	dB
			R_f=1kΩ, V_{IN}=10mV$_{rms}$	-	40	-	
Total Harmonic Distortion	THD	-	P_{OUT}=50mW	-	0.1	1.0	%
			P_{OUT}=500mW	-	0.05	1.0	
Output Noise Voltage	V_{NO}	-	R_g=33kΩ, BW=50Hz ~ 20kHz	-	-	1.5	mV$_{rms}$
Channel Separation	CSR	-	R_g=∞, P_{OUT}=1.5W	-	-55	-	dB
Input Resistance	R_{IN}	-	V_{OUT}=2V$_{rms}$	-	80	-	kΩ

EQUIVALENT CIRCUIT

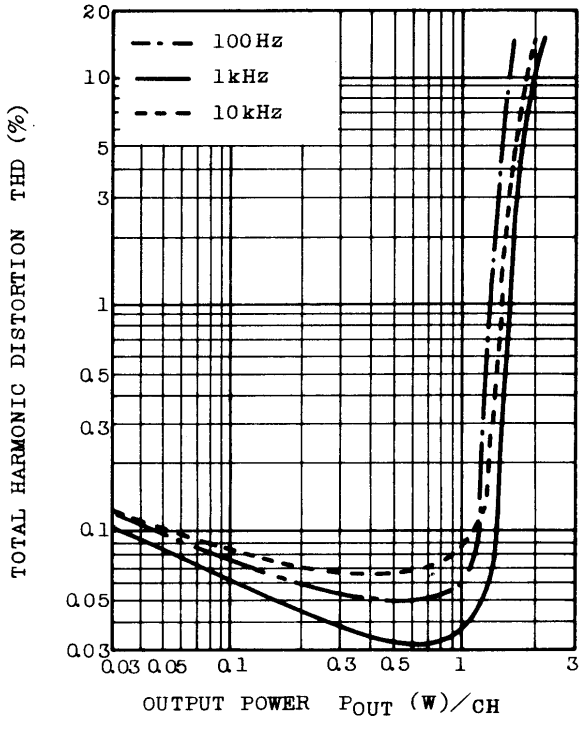


D.C : De coupling
P.C : phase compensation

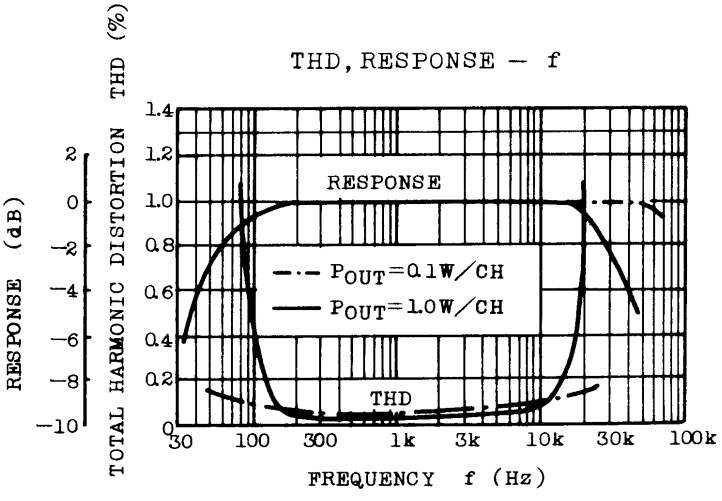
TEST CIRCUIT



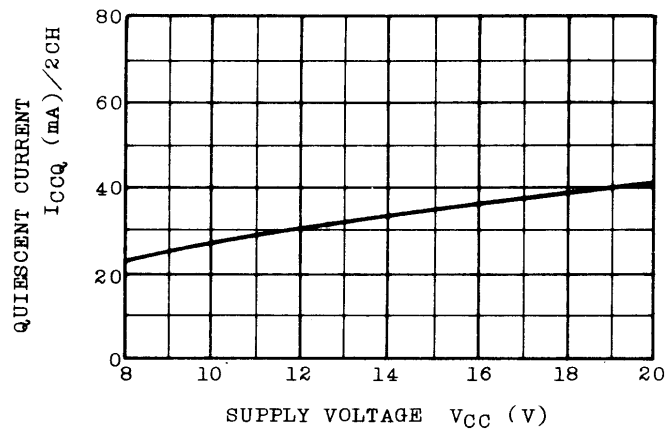
THD — POUT



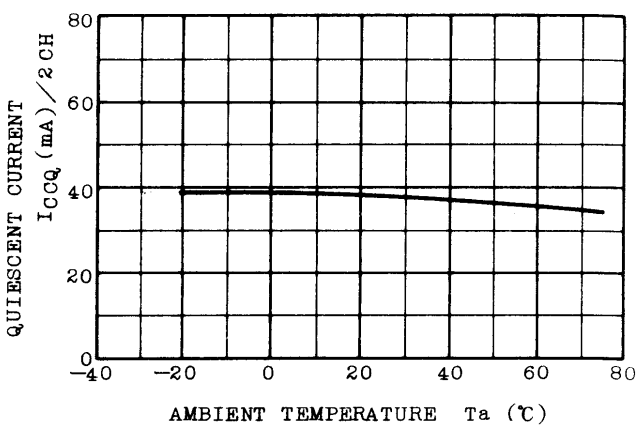
THD, RESPONSE — f



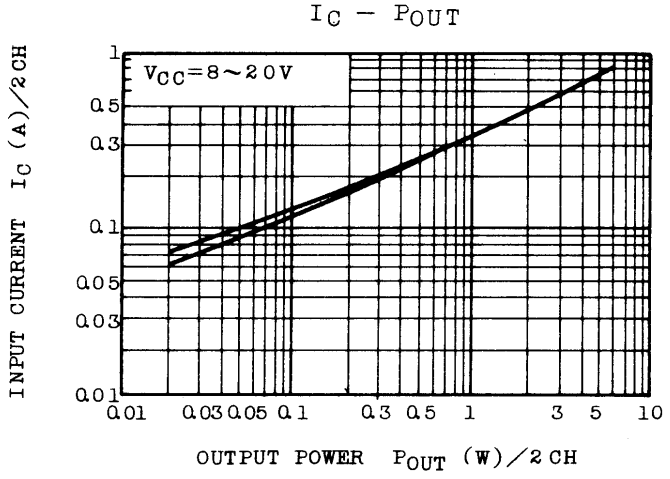
I_{CCQ} – V_{CC}



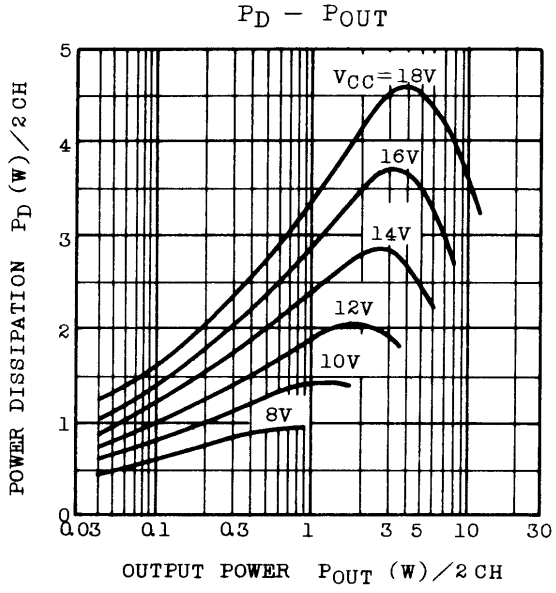
I_{CCQ} – Ta



I_C – P_{OUT}



P_D – P_{OUT}



P_D – Ta