

# BTL Power Amplifier

## **MB3730**

18V/12W

# DATASHEET

OEM – Fujitsu

Source: Fujitsu Databook 1983

**FUJITSU**  
**MICROELECTRONICS**

**MB3730**

## 12W BTL POWER AMPLIFIER

### ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	18	V
Supply Voltage (Surge) $t_s \leq 0.2\text{s}$	$V_{CCS}$	40	V
Output Current (Peak)	$I_{OPEAK}$	4.5	A
Power Dissipation	$P_D$	18	W
Operating Temperature	$T_{OP}$	-20 to +75	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

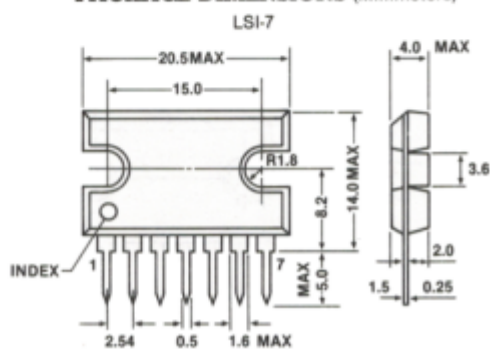
### RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	8.0 to 16.0	V
Operating Temperature	$T_{OP}$	-20 to +75	$^\circ\text{C}$

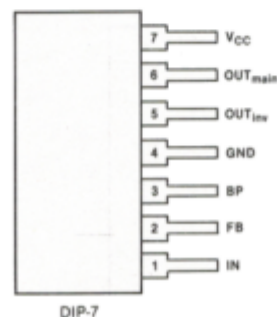
### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ , $V_{CC} = 13.2\text{V}$ , $R_L = 40\Omega$ , $f = 1\text{kHz}$ )

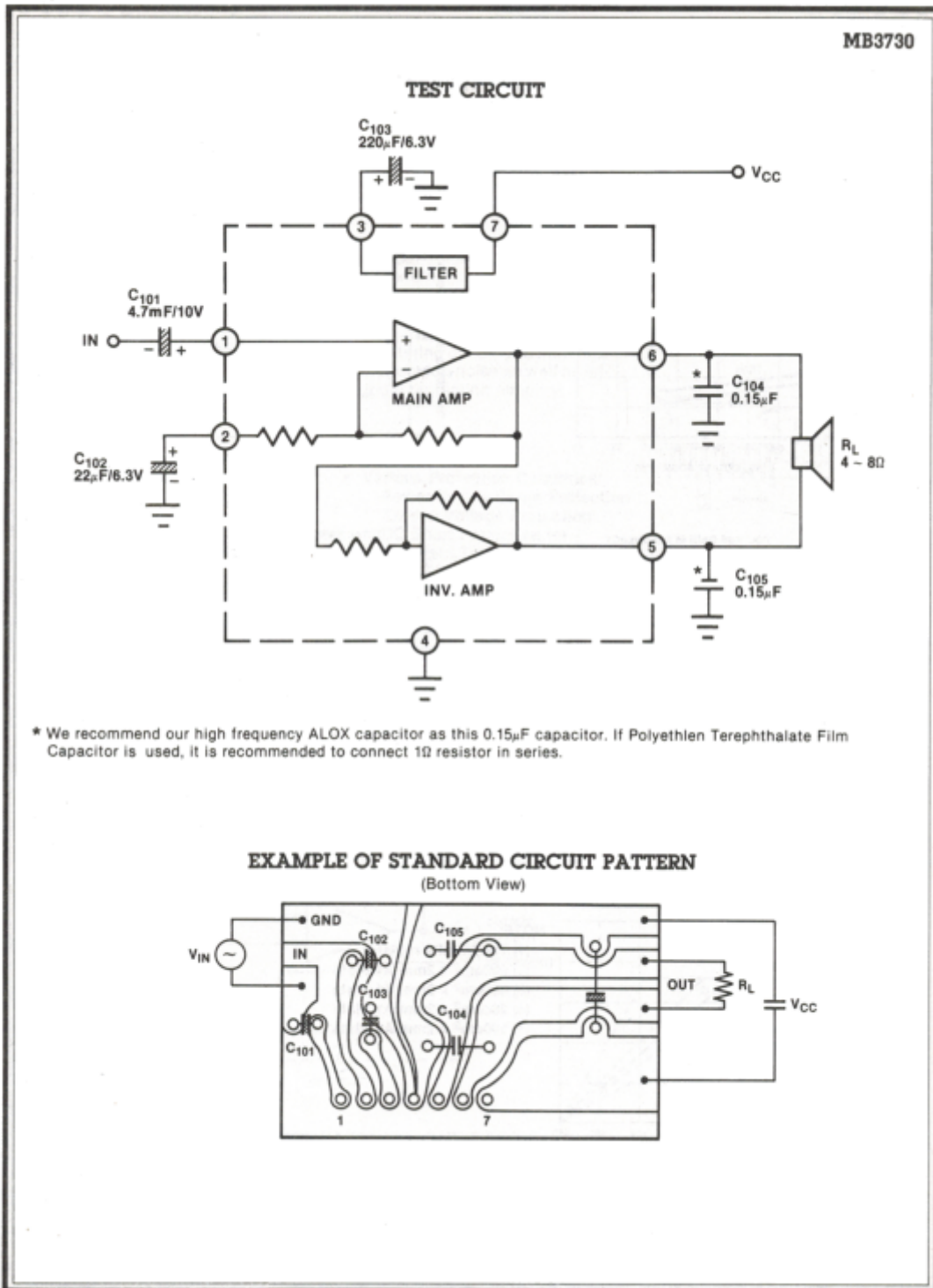
Parameter	Symbol	Condition	Value			Unit
			Min	Typ	Max	
Supply Current (Without Input Signal)	$I_Q$	$V_{IN} = 0\text{V}$ , $R_L = \infty$	—	80	200	mA
Voltage Gain	$A_V$	$P_O = 1\text{W}$	52.5	55	57.5	dB
Output Power	$P_O$	THD = 10%	10	12	—	W
Total Harmonic Distortion	THD	$P_O = 1\text{W}$	—	0.2	1.0	%
Output Noise Voltage	$V_{NO}$	$R_g = 10\Omega$ , BW = 20Hz to 20kHz	—	1.0	2.0	mV
Input Resistance	$R_{IN}$		40	70	—	k $\Omega$
Output Offset Voltage	$V_{OO}$	$V_{IN} = 0\text{V}$	—	0.5	0.8	V

### PACKAGE DIMENSIONS (Millimeters)



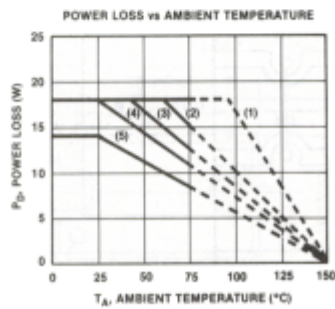
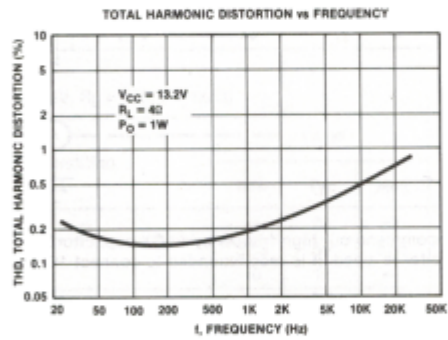
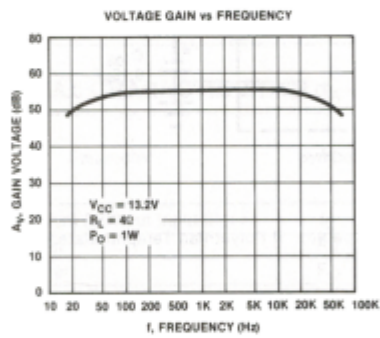
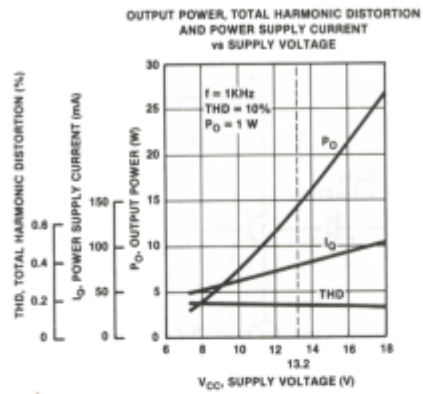
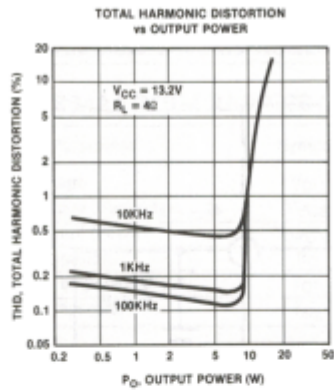
### PIN ASSIGNMENT





MB3730

TYPICAL CHARACTERISTICS CURVES



- NOTE:
- (1) The infinite radiator
  - (2) 900cm<sup>2</sup> x 2mm A1 Plate
  - (3) 400cm<sup>2</sup> x 2mm A1 Plate
  - (4) 200cm<sup>2</sup> x 2mm A1 Plate
  - (5) 100cm<sup>2</sup> x 2mm A1 Plate