REFERENCE DATA

SPECIFICATION

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SIGNATURE	DATE
DRAWN BY S. Koizumi	17 Aug. 1998
CHECKED BY K. Sakai	17. Aug. 1998
APPROVED BY M. Tanaka	18 Aug. 1998
QC. APPROVED BY Fumio Yoshioka	18. AUG. 1998

1. Purpose

This part drawing defines the requirements for TK10692M.
(Noise Reduction System)

2. TOKO Part Number

TK10692M

3. Function

Noise Reduction System (Compandor, Expander exclusive use.)

4. Applications

Wireless Microphone, Wireless Headphone, etc.

5. Structure

The structure is a silicon monolithic bipolar circuit

6. Package Outline

36Lead—Shrink small outline package :SSOP-36

7. Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit	Condition
Supply Voltage	$V_{CC\ MAX}$	6.0	V	
Power Dissipation	P_D	400	mW	※
Operating Voltage Range	V_{OP}	1.8 ～ 5.5	V	
Storage Temperature Range	Tstg	−55 ～ +150	℃	
Operating Temperature Range	T_{OP}	−20 ～ +70	℃	
Input Frequency	f_{MAX}	100	kHz	

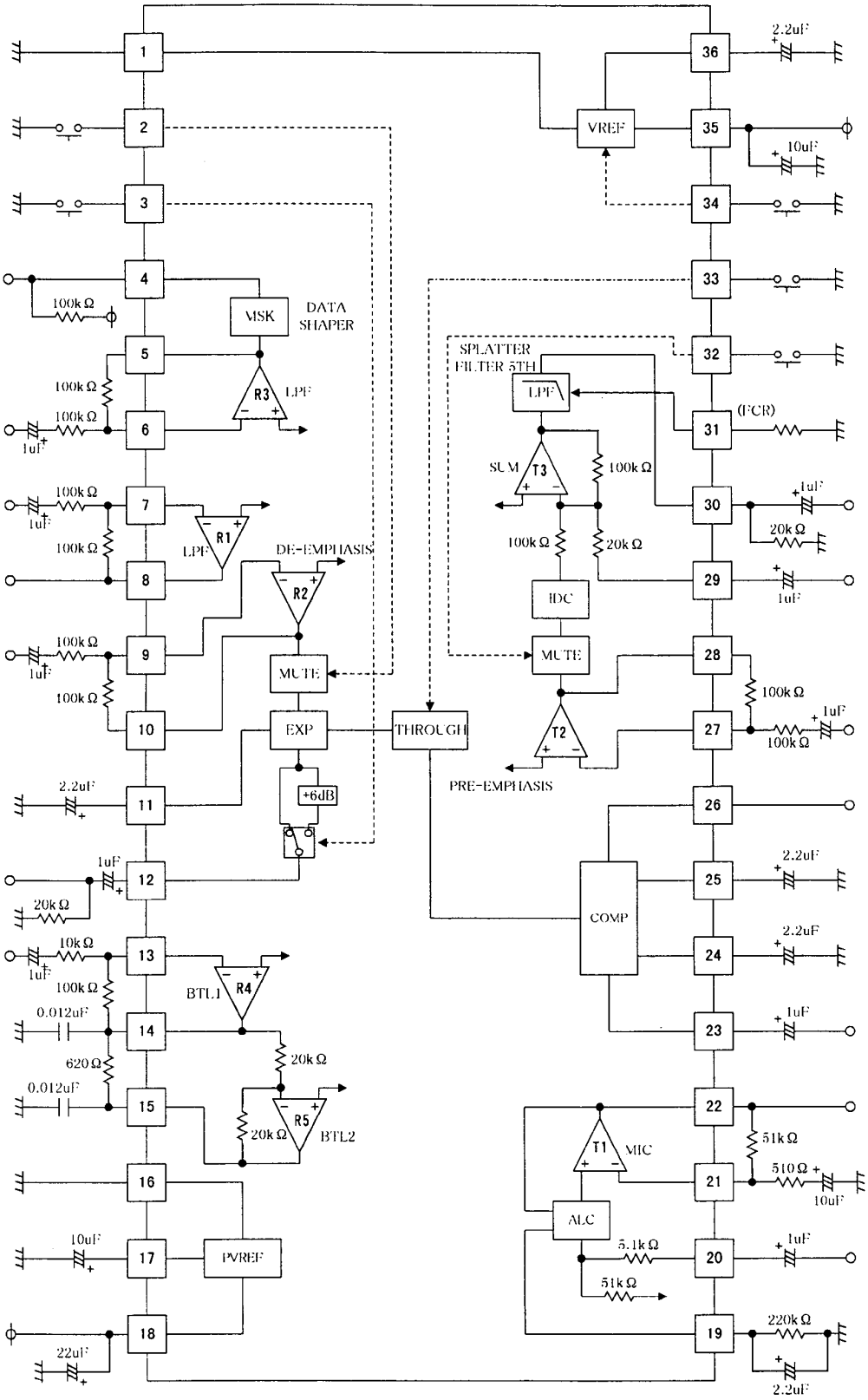
※ P_D must be derated at rate of 3.2mW／℃ for operation at 25℃.

8. Electrical Characteristics

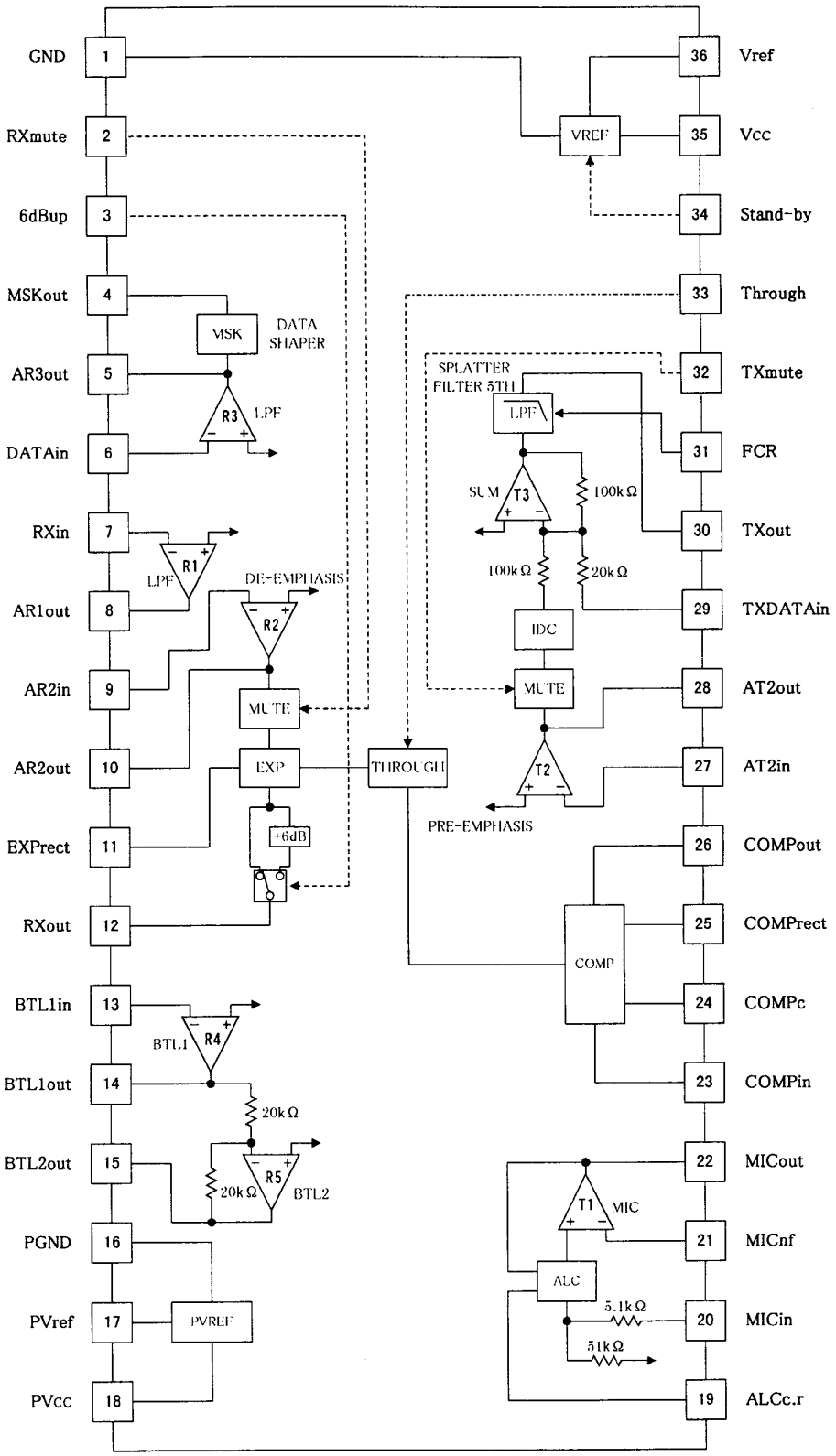
Condition : Ta=25℃, Vcc=2.3V, PVcc=2.6V, fin=1.0kHz

Parameter	Symbol	Value			Unit	Condition
		MIN	TYP	MAX		
Supply Current 1	Icc	—	5.6	8.4	mA	None signal
Standby Supply Current 1	Iccs	—	0.8	1.2	mA	None signal, Stand by-Mode
Supply Current 2	PIcc	—	1.6	2.5	mA	None signal
Standby Supply Current 2	Piccs	—	43	65	uA	None signal, Stand by-Mode
TX						Vin:20Pin, Vo:30Pin
Output Voltage 1	Vo1.RX	-19	-16	-13	dBV	Vin=-60dBV
Total Harmonic Distortion 1	THD1.RX	—	0.4	1.0	%	Vin=-60dBV
Output Voltage 2	Vo2.TX	-14	-11	-8	dBV	Vin=-30dBV (Mic ALC ON)
Total Harmonic Distortion 2	THD.TX	—	0.5	—	%	Vin=-30dBV (Mic ALC ON)
Output Noise Voltage	Vn.TX	—	5.5	10.0	mV	Rg=600Ω
RX						Vin:7Pin, Vo:12Pin
Output Voltage	Vo.RX	-26.5	-22.5	-17.5	dBV	Vin=-16dBV
Total Harmonic Distortion	THD.RX	—	0.2	1.0	%	Vin=-60dBV
Output Noise Voltage	Tn.RX	—	12	30	uV	Rg=600Ω
Cross talk						
Cross talk TX	CT.TX	—	-45	-40	dBV	RX Vin=-16dBV
Cross talk RX	CT.RX	—	-98	-88	dBV	TX Vin=-16dBV
Switch						
Sw High level	Sw.H	1.8	(1.4)	Vcc	V	Internal Bias Current : About 10uA
Pull up Voltage	Pu.I	—	10	—	uA	
Sw Low level	Sw.L	0.0	—	0.4	V	
Sw Mode						Normal high level
Rxmute	Sw2	0.0	—	0.4	V	Low-active
6dBup	Sw3	0.0	—	0.4	V	Low-active
Txmute	Sw32	0.0	—	0.4	V	Low-active
Through	Sw33	0.0	—	0.4	V	Low-active
Stand-by	Sw34	1.8	—	Vcc	V	High-active

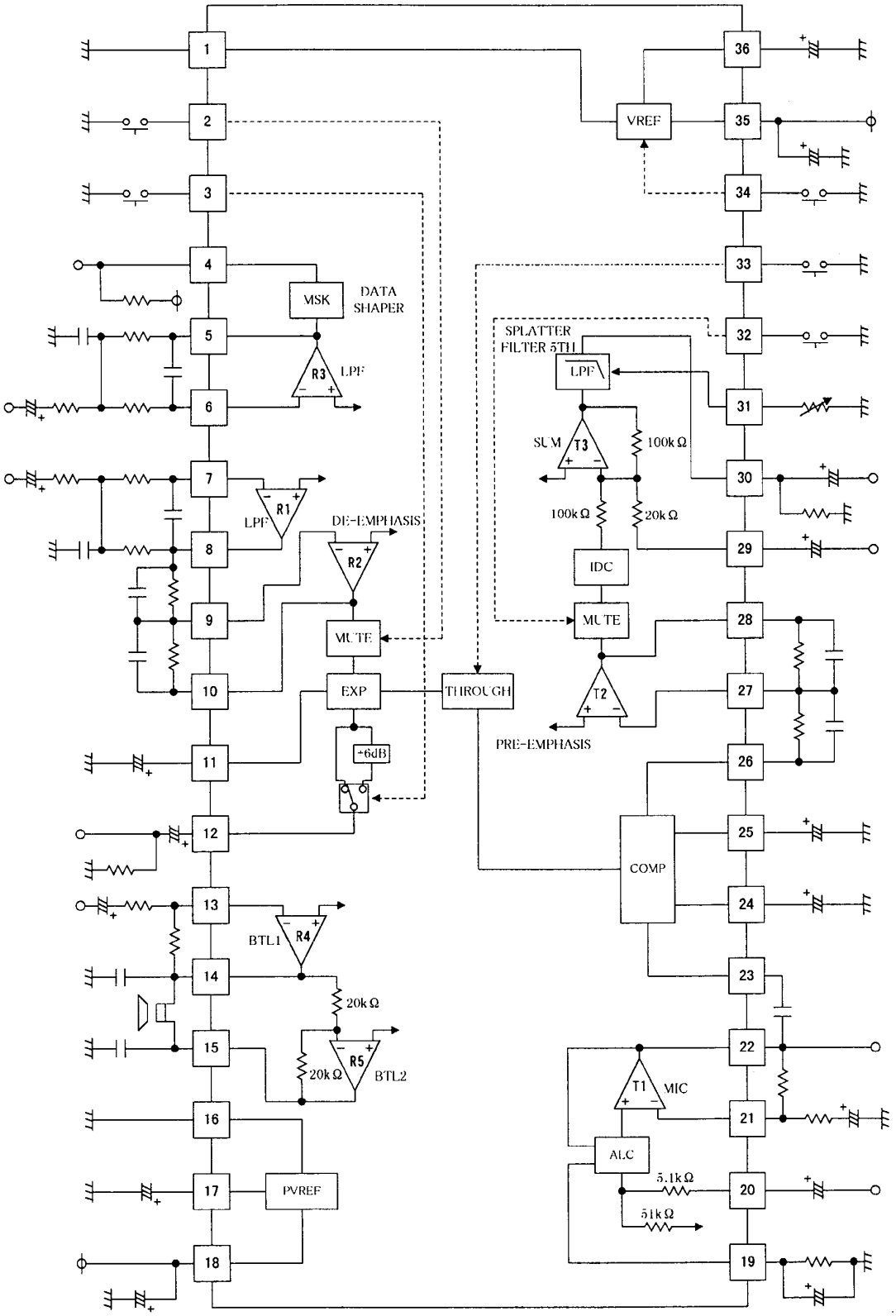
9. Test Circuit



10. Pin Assignment

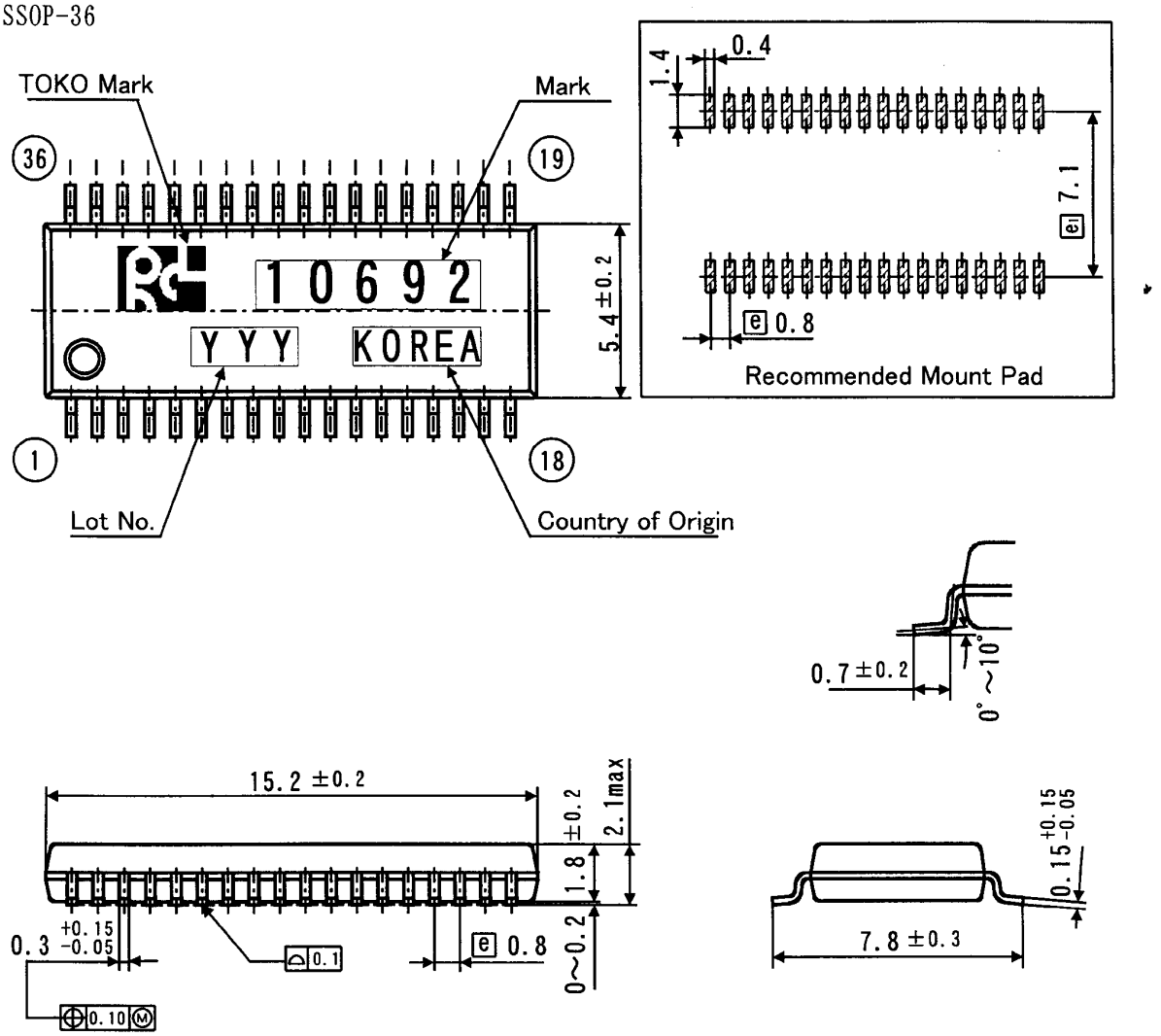


11. Block Diagram



12. Package Outline Dimensions/Marking

SSOP-36



			Molded Resin	:	Epoxy Resin
			Lead Frame	:	42 Alloy
			Terminal Treatment	:	Solder Plating(5~15 μ m)
			Mark Method	:	Ink
Unit	:	mm	Country of Origin	:	Korea
General Tolerance	:	±0.2	Weight	:	0.30g

13. Cautions

13-1. WARNING - Life support applications policy
TOKO,INC. products shall not be used within any life support systems without the specific written consent of TOKO,INC. A life support system is a product or system intended to support or sustain life which, if it fails, can be reasonably expected to result in a significant personal injury or death.

13-2. Examples of characteristics given here are typical for each product and being technical data, these do not constitute a guarantee of characteristics or conditions of use.
The circuits shown in this specification are intended to explain typical applications of the products concerned. Accordingly, TOKO is not responsible for any circuit problems, nor for any infringement of third party patents or any other intellectual property rights that may arise from the use of these circuits. Moreover , this catalog dose not signify that TOKO agrees implicitly or explicitly to license any patent rights or other intellectual property rights which it holds.

13-3. This part is not designed for anti-nuclear radiation structure.
Please do not use this part in an environment where nuclear radiation may occur.

13-4. We may not accept the return of parts damaged by careless handling.

14. Others

14-1. No Ozone Depleting Substances were used in the manufacture of theses parts.

14-2. No material used in this part contain brominated PBBOs or PBBs as the flame-retardant.

14-3. In the event of any confusion concerning this "Specifications", both parties shall settle such confusion through reasonable discussions.

14-4. The announcement number of CISTEC list is as follows.
TK1069****** No. : 0002500010000252 Announcement time : January 1995

14-5. For the cautions to storage and device mounting, please refer to the Quality Specification No. QH5-B130.

14-6. For the package, please refer to the Package Specification No. DP3-J014.