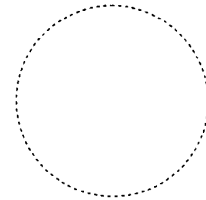


REFERENCE DATA

SPECIFICATION

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SIGNATURE	DATE
DRAWN BY <i>Niroshi Sakagume</i>	21 Nov. 1997
CHECKED BY <i>Niroshi Kondo</i>	21 Nov. 1997
APPROVED BY <i>M. Tanaka</i>	27 Nov. 1997
QC. APPROVED BY <i>Hideo Wakasugi</i>	27 Nov. 1997

1. Purpose

This part drawing defines the requirements for TK10492M.
(FM IF System)

2. TOKO Part Number

TK10492M

3. Function

Narrow Band FM IF System

4. Applications

Cordless Phones , Amateur Radio Transceivers.

5. Structure

The structure is a silicon monolithic bipolar circuit

6. Package Outline

16Lead—Small Outline Package :SOP-16 (MFP16)

7. Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit	Condition
Supply Voltage	VCC MAX	10.0	V	
Power Dissipation	PD	600	mW	※
Operating Voltage Range	VOP	2.5 ~ 8.0	V	
Storage Temperature Range	Tstg	-55 ~ +150	°C	
Operating Temperature Range	TOP	-30 ~ +70	°C	
Input Frequency	f MAX	~ 100	MHz	

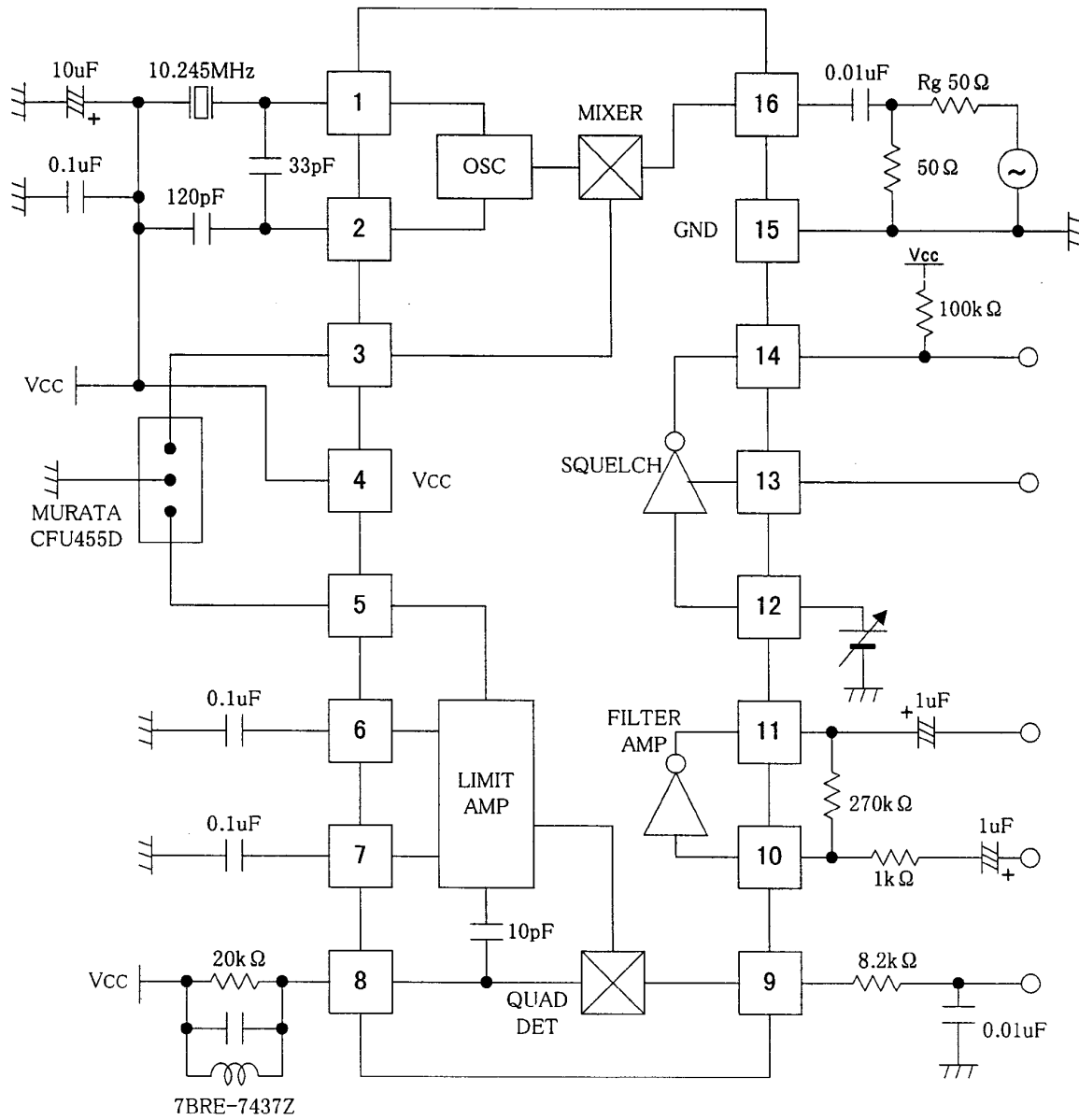
※ PD must be derated at rate of 4.8mW/°C for operation at 25°C.

8. Electrical Characteristics

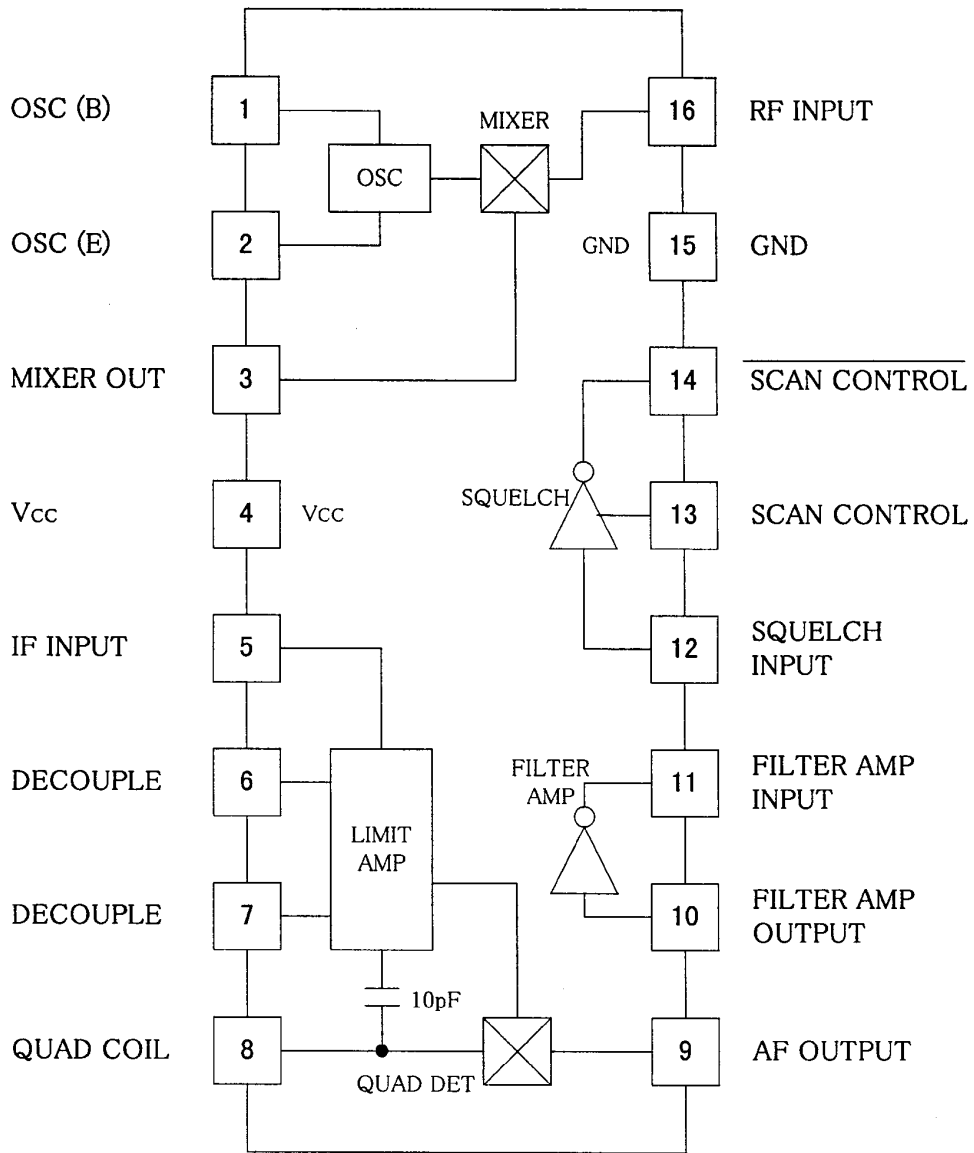
Condition : $V_{CC}=3.0V$, $F_c=10.7MHz$, $\Delta f=\pm 3kHz$,
 $f_m=1kHz$, $T_a=25^\circ C$

Parameter	Symbol	Value			Unit	Condition
		MIN	TYP	MAX		
Supply Current 1	ICC 1		2.8	3.8	mA	Non input, Squelch off
Supply Current 2	ICC 2		3.3	4.4	mA	Non input, Squelch on
Limiting Sensitivity	LIMIT		2.0	6.0	uV	-3dB point
Recovered Output	Vo		100	180	mVrms	Vin=10mV, $\Delta f=\pm 3kHz$
Detector Output Impedance	Zo		600		Ω	Vin=10mV
Distortion	THD		1.0	2.5	%	Vin=10mV
Gain	Fc	40	46		dB	f=10kHz, Vin=0mV
Output Voltage	FDC		0.7		V	Non input
Scan Control High level	SH	2.5			V	Squelch input=0V
Scan Control Low level	SL			0.5	V	Squelch input=2.5V
Scan Control High level	\overline{SH}	2.5			V	Squelch input=2.5V
Scan Control Low level	\overline{SL}			0.5	V	Squelch input=0V
Squelch Hysteresis	Hys		50		mV	
Mixer Conversion Gain	MG	21	28		dB	
Mixer Input Resistance	MR		3.6		k Ω	DC measurement

9. Test Circuit

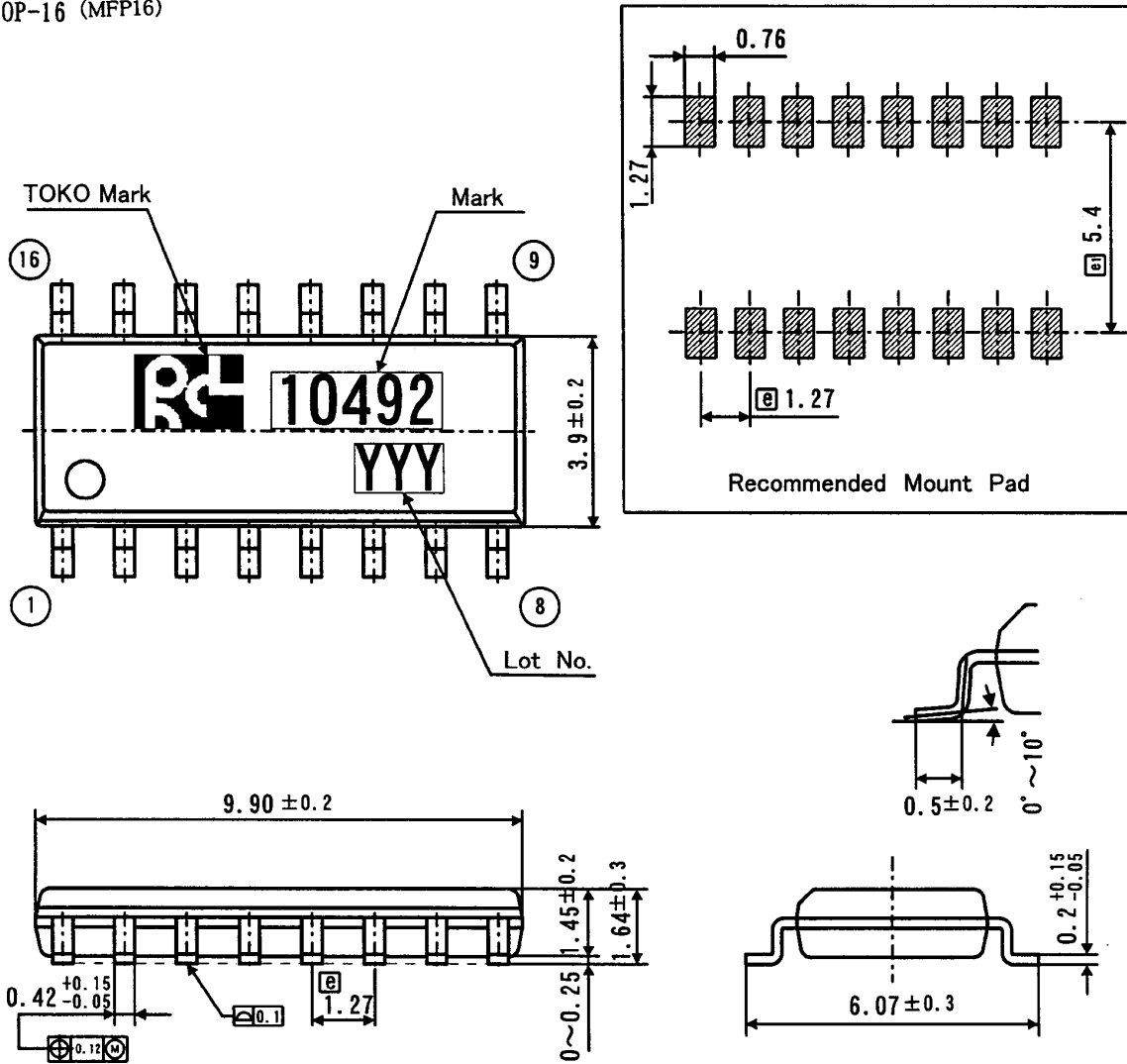


10. Pin Assignment / Block Diagram



11. Package Outline Dimensions/Marking

SOP-16 (MFP16)



- Molded Resin : Epoxy Resin
- Lead Frame : Copper Alloy
- Terminal Treatment : Solder Plating(5~15 μ m)
- Mark Method : Ink
- Country of Origin : Philippines
- Weight : 0.15g

Unit : mm
 General Tolerance : ± 0.2

12. Cautions

- 12-1. 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.

- 12-2. 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.

- 12-3. This part is not designed for anti-nuclear radiation structure.
Please do not use this part in an environment where nuclear radiation may occur.

- 12-4. We may not accept the return of parts damaged by careless handling.

13. Others

- 13-1. No Ozone Depleting Substances were used in the manufacture of theses parts.

- 13-2. No material used in this part contain brominated PBBOs or PBBs as the flame-retardant.

- 13-3. In the event of any confusion concerning this "Specifications", both parties shall settle such confusion through reasonable discussions.

- 13-4. The announcement number of CISTEC list is as follows.
TK10492***** No. : 0002500010000005 Announcement time : September 1992

- 13-5. For the cautions to storage and device mounting, please refer to the Quality Specification No. QH7-B012.

- 13-6. For the package, please refer to the Package Specification No. DP3-F026.