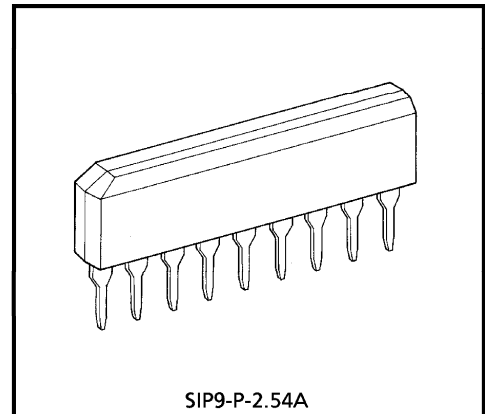


TA8136S

RADIO CONTROL TRANSMITTER IC

The TA8136S is designed for a 1 chip transmitter IC including pulse generator, duty control mixer, carrier oscillator, and RF power amplifier.

This IC has 7 control modes by combination of external switches (SW1 and SW2). A modulation frequency (pulse wave) is set arbitrarily by capacitance C_1 , resistance R_1 and R_2 .

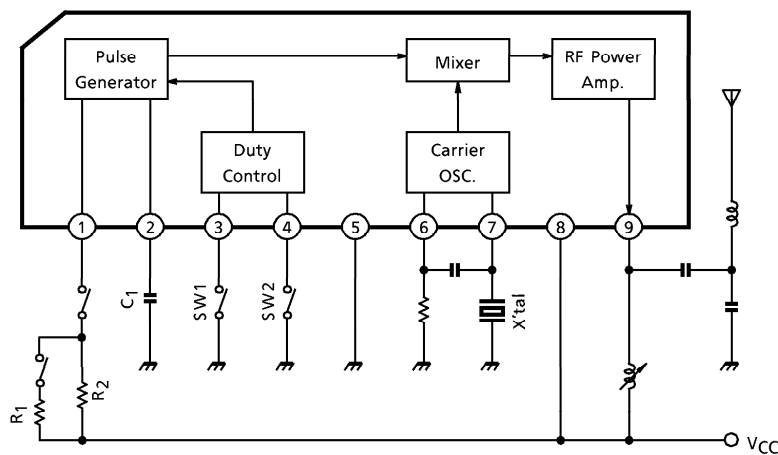


Weight : 0.92g (Typ.)

FEATURES

- Very few external parts
- Square wave frequency can be freely set.
- Square wave duty cycle can be controlled keeping fixed frequency.
- Wide supply voltage range : $V_{CC(opr)} = 6\sim 11V$ (Recommended $V_{CC} = 9V$)

BLOCK DIAGRAM



961001EBA2

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MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	12	V
Power Dissipation	P _D (Note)	600	mW
Operating Temperature	T _{opr}	- 25~75	°C
Storage Temperature	T _{stg}	- 55~150	°C

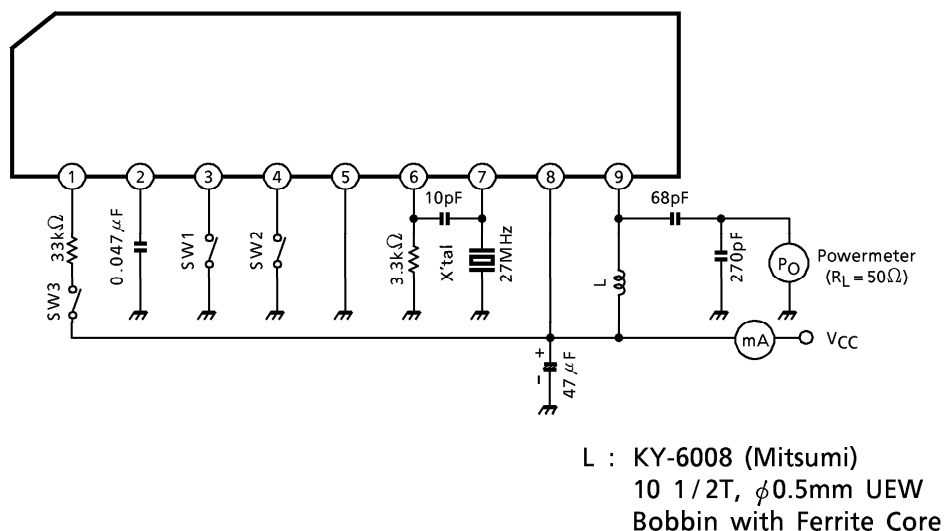
(Note) Derated above 25°C in the proportion of 4.8mW/°C.

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, Ta = 25°C, V_{CC} = 9V, f_{OSC} = 27MHz)

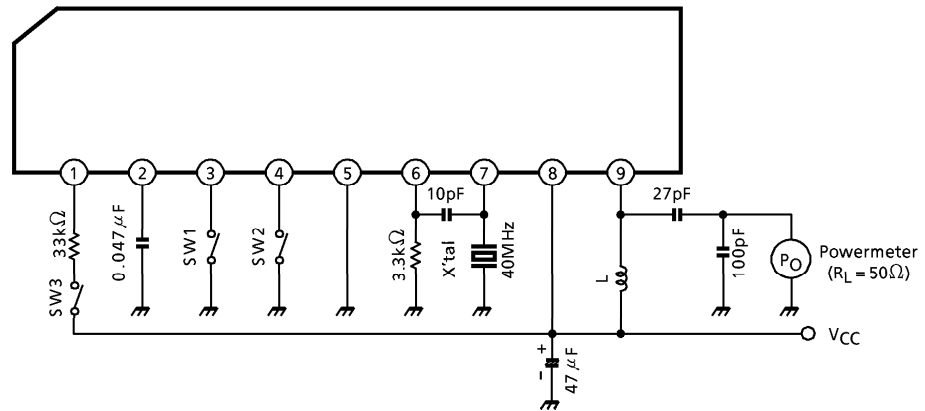
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I _{CC} (1)	1	A Mode	—	20	27	mA
	I _{CC} (2)		B Mode	—	22	—	
	I _{CC} (3)		C Mode	—	18	—	
Transmitter Output Power	P _O (1)	1	f _{OSC} = 27MHz	16	30	—	mW
	P _O (2)	2	f _{OSC} = 40MkHz				
Modulation Frequency	f _m	3	A, B, C Mode	—	2.3	—	kHz

A Mode→SW1, SW2 : OFF
 B Mode→SW1 : ON, SW2 : OFF
 C Mode→SW1 : OFF, SW2 : ON
 (Note) Non Moduration Mode

TEST CIRCUIT 1

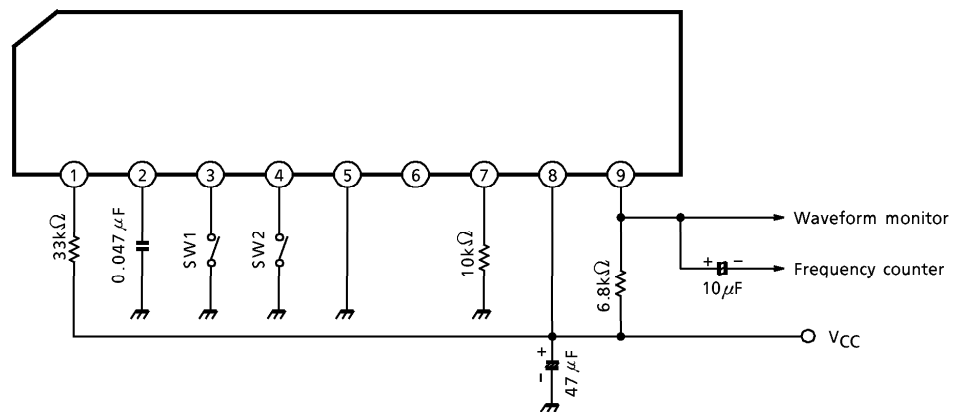


TEST CIRCUIT 2

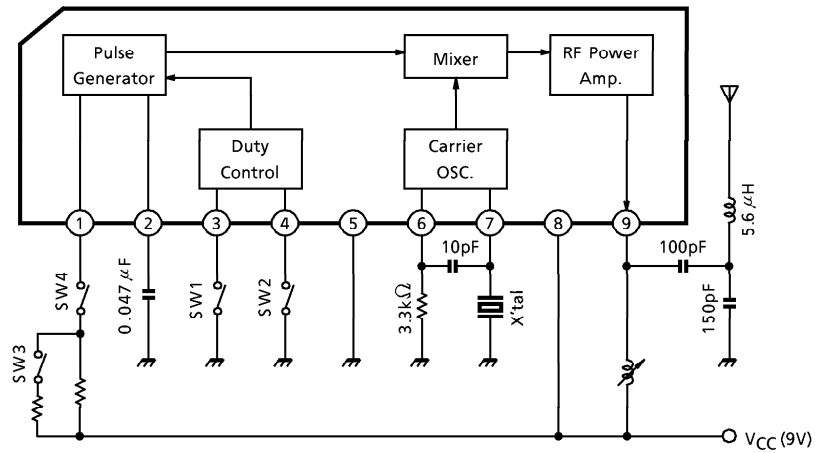


L : KY-6008 (Mitsumi)
 10 1/2T, φ0.5mm UEW
 Bobbin with Ferrite Core

TEST CIRCUIT 3



27MHZ APPLICATION CIRCUIT



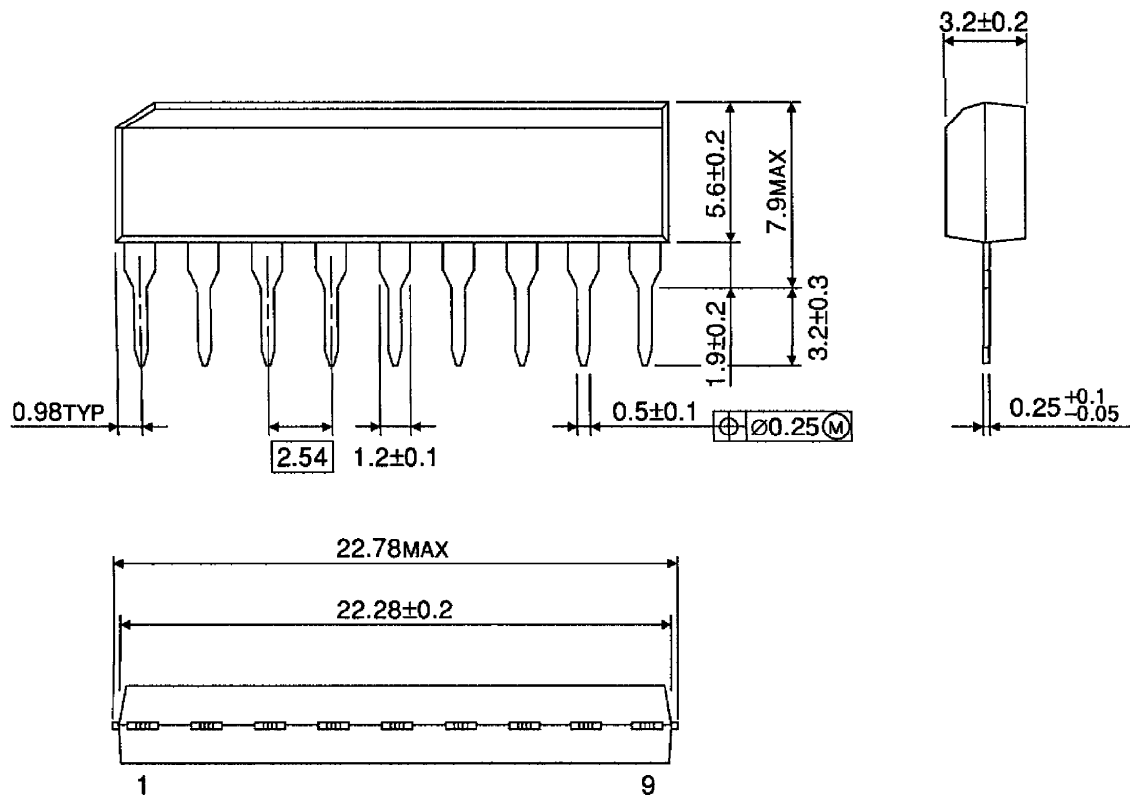
TRANSMITTER OUTPUT WAVE FORM

SW4	SW1	SW2	SW3 OFF	SW3 ON	DUTY CYCLE (%)
OFF	—	—			Non-Modulation Mode
ON	OFF	OFF			50
	ON	OFF			75
	OFF	ON			25

(Freq.1 < Freq.2)

OUTLINE DRAWING
SIP9-P-2.54A

Unit : mm



Weight : 0.92g (Typ.)