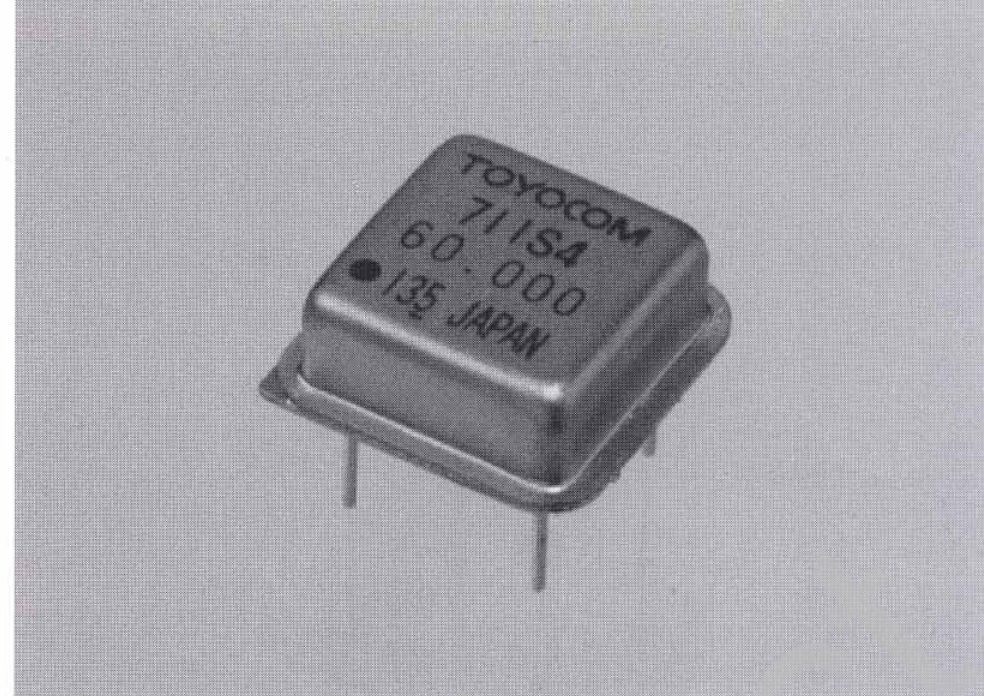


# TCO-711S4 TCO-745S4 TCO-744S4

HALF DIP TTL



## Features

- TTL logic output
- DIL-8 pin package compatible
- Hermetically sealed metal package
- Case ground 4-pin for minimizing RF radiation

## Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Supply voltage	V <sub>CC</sub>	-0.5 to +7.0	V
Input voltage	V <sub>IN</sub>	-0.5 to V <sub>CC</sub> +0.5	V
Output voltage	V <sub>O</sub>	-0.5 to V <sub>CC</sub> +0.5	V
Input current	I <sub>IN</sub>	±10	mA
Output current	I <sub>O</sub>	±25	mA
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

## Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Frequency range	F <sub>O</sub>	1.25	—	70	MHz	TCO-711S4 TCO-745S4, TCO-744S4
Frequency stability	ΔF/F <sub>O</sub>	-100	—	100	ppm	TCO-711S4 *1
		-50	—	50	ppm	TCO-745S4
		-25	—	25	ppm	TCO-744S4
Operating temperature	T <sub>opr</sub>	0	25	70	°C	
Operating voltage	V <sub>CC</sub>	4.5	5.0	5.5	V	DC
Operating current	I <sub>CC</sub>	—	—	See Table A	mA	V <sub>CC</sub> = 5.5V
Output voltage	V <sub>OH</sub>	2.4	—	—	V	I <sub>OH</sub> = -4mA
	V <sub>OL</sub>	—	—	0.4	V	I <sub>OL</sub> = 16mA
Symmetry	SYM	45	50	55	%	at 1.4V
Rise/Fall time	t <sub>r</sub> ,t <sub>f</sub>	—	—	See Table A	ns	at 0.4V to 2.4V / at 2.4V to 0.4V
Fanout	n	—	—	10	—	1.25 to 60MHz
		—	—	5	—	60+ to 70MHz
Start-up time	t <sub>st</sub>	—	—	4	ms	1.25 to 26MHz *2
		—	—	10	ms	26+ to 70MHz *2

\*1 Inclusive of calibration tolerance at 25°C, operating temperature, operating voltage range.

\*2 Rise time (0 to 4.5V) of V<sub>CC</sub> > 150μs

Table A

Freq.	1.25+ to 14	14+ to 26	26+ to 40	40+ to 70	MHz
I <sub>CC</sub>	15	35	40	50	mA
t <sub>r</sub> ,t <sub>f</sub>	10	10	10	5	ns

## Test Circuit

See page 5 TEST-1.

## Package outline

