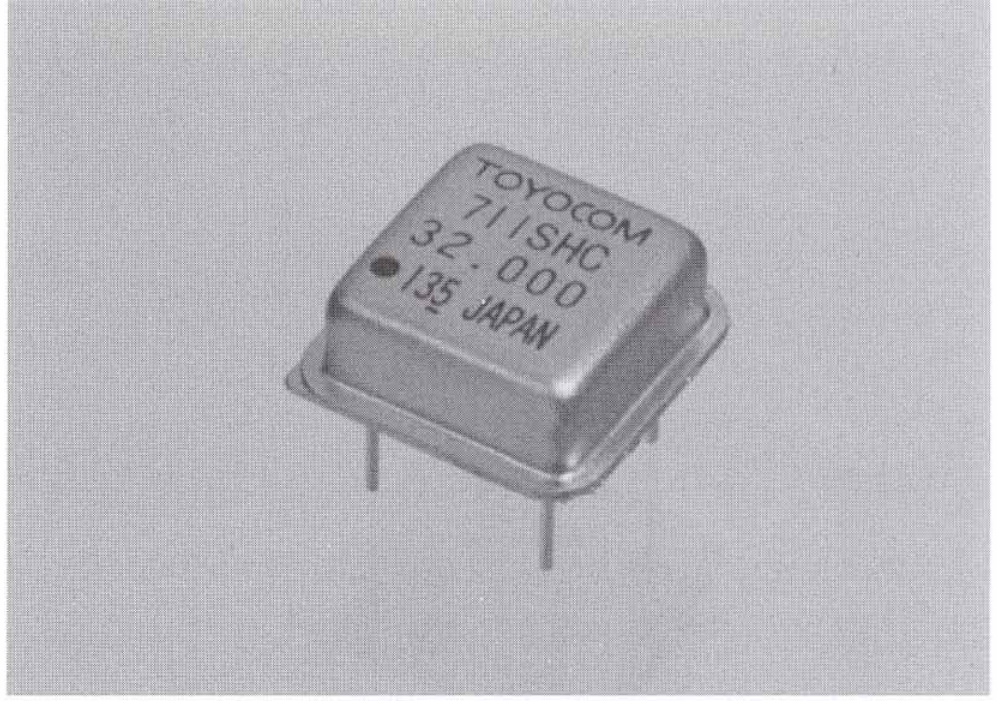
TCO-711SHC
TCO-745SHC
TCO-744SHC

HALF DIP CMOS



Features

- CMOS 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_{CC}	-0.5 to +7.0	V
Input voltage	V_{IN}	-0.5 to V_{CC} +0.5	V
Output voltage	V_O	-0.5 to V_{CC} +0.5	V
Input current	I_{IN}	±10	mA
Output current	I_O	±25	mA
Storage temperature	T_{stg}	-55 to +125	℃

Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Frequency range	F_O	1.25	—	70	MHz	
Frequency stability	$\triangle F/F_O$	-100 -50 -25	— — —	100 50 25	ppm ppm ppm	TCO-711SHC *1* TCO-745SHC TCO-744SHC
Operating temperature	T_{opr}	0	25	70	℃	
Operating voltage	V_{CC}	4.5	5.0	5.5	V	DC
Operating current	I_{CC}	—	—	*See Table A*	mA	V_{CC} = 5.5V
Output voltage	V_{OH} V_{OL}	V_{CC}-0.4 —	— —	— 0.4	V V	I_{OH} = -4mA I_{OL} = 4mA
Symmetry	SYM	45	50	55	%	at 50%V_{CC}
Rise/Fall time	tr,tf	—	—	*See Table A*	ns	at 10%V_{CC} to 90%V_{CC} / at 90%V_{CC} to 10%V_{CC}
Load capacitance	C_L	— — —	15 15 —	50 30 15	pF pF pF	1.25 to 26MHz 26+ to 50MHz 50+ to 70MHz
Start-up time	t_{st}	— —	— —	4 10	ms ms	1.25 to 26MHz *2* 26+ to 70MHz *2*

**1 Inclusive of calibration tolerance at 25℃, operating temperature, operating voltage range.*
**2 Rise time (0 to 4.5V) of V_{CC} > 150μs*

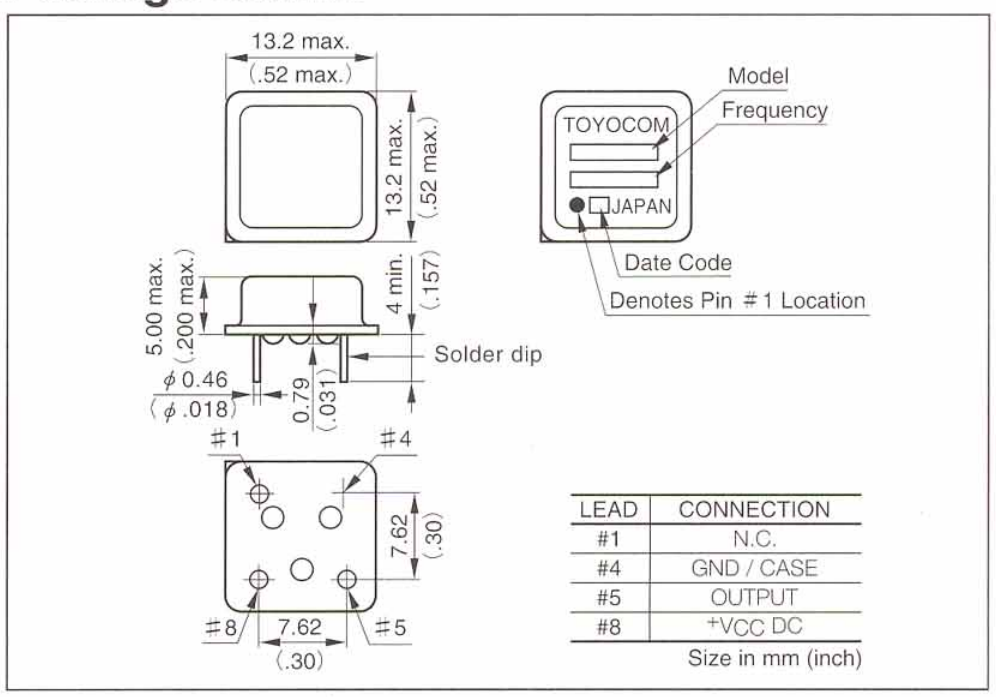
Table A

Freq.	1.25+ to 10	10+ to 26	26+ to 50	50+ to 70	MHz
I_{CC}	10	15	35	50	mA
tr,tf	12	12	10	6	ns

Test Circuit

See page 5 TEST-3.

Package outline



LEAD	CONNECTION
#1	N.C.
#4	GND / CASE
#5	OUTPUT
#8	+V_{CC} DC

Size in mm (inch)