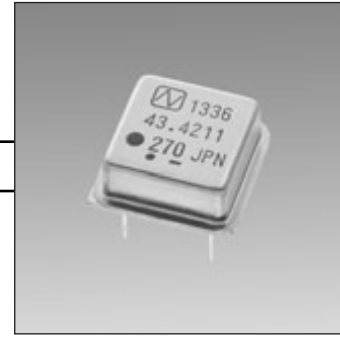


CRYSTAL CLOCK OSCILLATORS

1320 SERIES



■ Features

- Directly drives the TTL or C-MOS IC.
- Available from low frequency range up, 875kHz.
- Large fanout capability TTL5 (LS-TTL25).
- Low power consumption high speed Tr/Tf and accurate duty cycle (45 to 55% < 6.5MHz).

■ Absolute Maximum Rating

Supply Voltage (V_{DD}) -0.5~+7.0V DC
Storage Temperature Range -55~+125°C

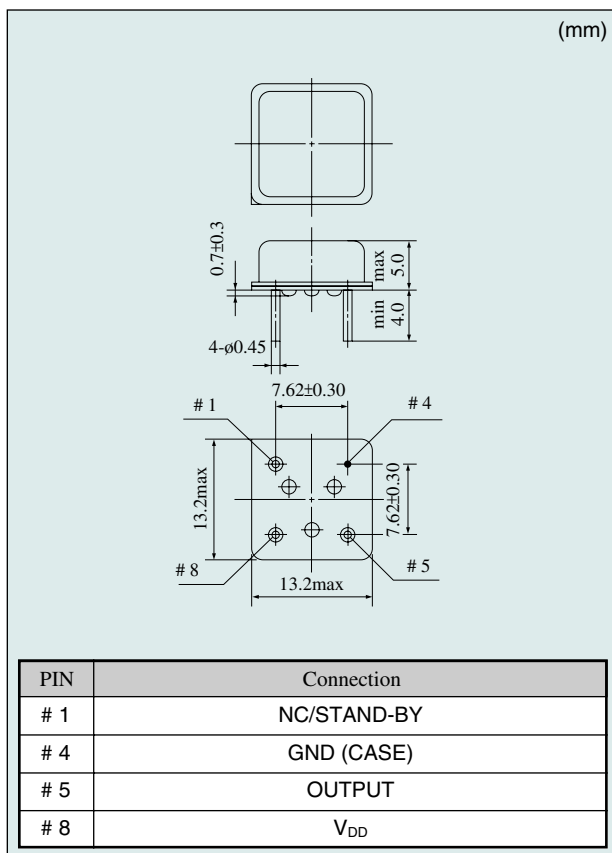
Item		Model	1326	1327	1328	1329		
Frequency	(MHz)		0.875~1.75	1.75~3.5	3.5~7	7~15	15~22	
Supply Voltage (V _{DD})	(V)		+5±10%					
Current Consumption	(mA) +5VDC, 25°C		5 (TYP) 10 (max)				8 (TYP) 13 (max)	
V _{OL} max/V _{OH} min	(V)		0.4/V _{DD} -0.5 I _{OL} =8mA I _{OH} =-8mA					
Tr max/Tf max	(ns)		5/5 (Value between 0.1×V _{DD} and 0.9×V _{DD})					
Duty Cycle	(%)	1/2V _{DD}	45~55 (< 6.5MHz), 40~60(≥ 6.5MHz)					
		1.4V	45~55 (< 6.5MHz), 40~60(≥ 6.5MHz)					
Fanout (gate)	C _L (pF)		15					
	TTL GATE		5					
Stand-by Function	Tri-state		Yes					

Note: The values of Current Consumption, Tr/Tf, Duty Cycle show the standard values under 5TTL.

If requested, Duty Cycle 45~55% (< 6.5MHz), No stand-by function version #5 pin : L level or no osc, #1 pin : L level (+0.8V max) is available.

If requested, Operating Temp. Range -40 to +85°C is available. Please contact us for detailed specifications.

■ 1320 Series Outline

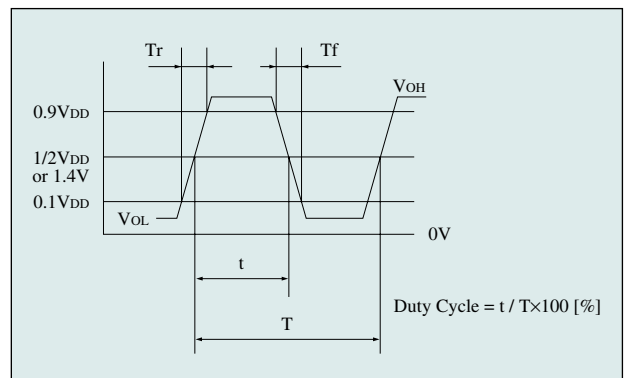


■ Option of Frequency Stability

Frequency stability (×10 ⁻⁶)	±50	±100
Ope. Temp.		
0~+70°C	A	B
-10~+70°C	—	G
-20~+70°C	—	M

Standard

■ Output Wave <C-MOS/TTL>



■ Stand-by Function <Tri-state>

# 1 pin input	# 5 pin output
H level (+2.2 Vmin) or open	Operating
L level (+0.8 Vmax)	High impedance

1330 SERIES

Features

- Directly drives the C-MOS IC.
- Available for high frequency range up to 70MHz.
- Accurate duty cycle 45~55%
- High speed Tr/Tf.

Absolute Maximum Rating

Supply Voltage (V_{DD}) -0.5~+7.0V DC

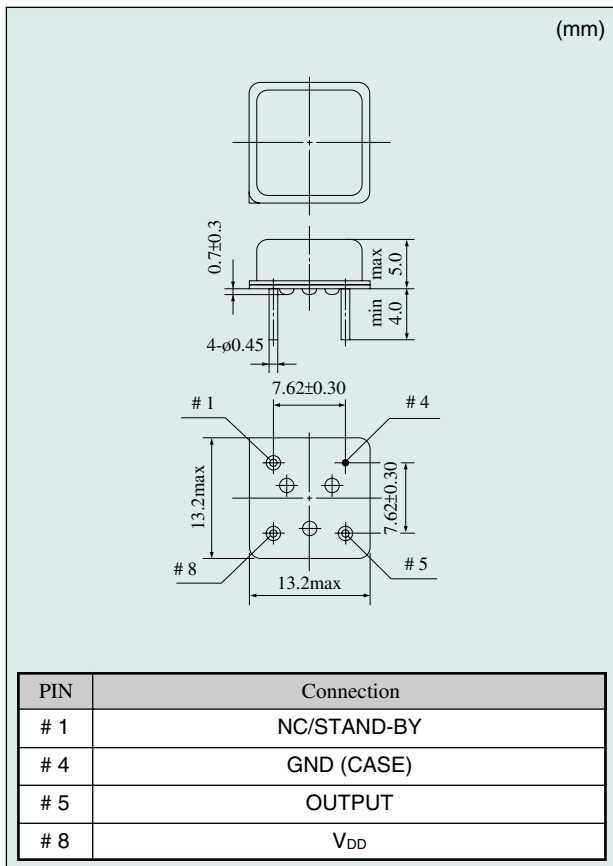
Storage Temperature Range -55~+125°C

Item	Model	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339
Frequency Range	(MHz)	22~23	23~26	26~30	30~34	34~36	36~40	40~44	44~51	51~60	60~70
Supply Voltage (V _{DD})	(V)	+5±10%									
Current Consumption	(mA) +5VDC, 25°C	15 (TYP) 25 (max)			20 (TYP) 30 (max)			25 (TYP) 35 (max)			
V _{OL} max/V _{OH} min	(V)	0.5/V _{DD} -0.5 I _{OL} =8mA I _{OH} =-8mA									
Tr max/Tf max	(ns)	5/5 (Value between 0.1×V _{DD} and 0.9×V _{DD})									
Duty Cycle	(%)	45~55 (at 1/2V _{DD})									
Fanout (gate)	C _L (pF)	15									
Stand-by Function	Tri-state	Yes									

Note: If requested, no stand-by function version #5 pin : H level or no osc, #1 pin : L level (+0.8V max) is available.

If requested, Operating Temp. Range -40 to +85°C is available. Please contact us for detailed specifications.

1330 Series Outline

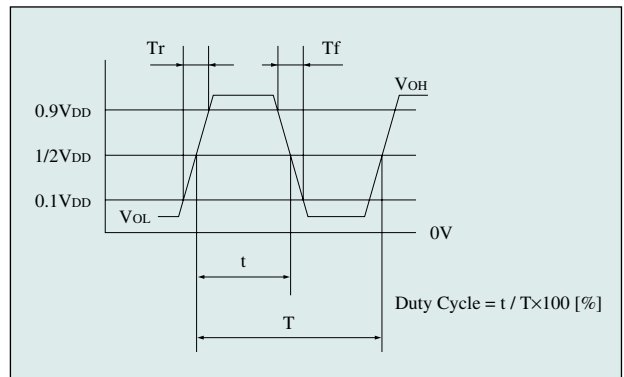


Option of Frequency Stability

Frequency stability (×10 ⁻⁶)	±50	±100
Op. Temp.		
0~+70°C	A	B
-10~+70°C	—	G
-20~+70°C	—	M

Standard

Output Wave <C-MOS>



Stand-by Function <Tri-state>

# 1 pin input	# 5 pin output
H level (+2.2 Vmin) or open	Operating
L level (+0.8 Vmax)	High impedance

CRYSTAL CLOCK OSCILLATORS

1340 SERIES

■ Features

- Directly drives the TTL IC.
- Available for high frequency range up to 70 MHz.
- High speed Tr/Tf.
- Large fanout capability TTL5 (LS-TTL25).

■ Absolute Maximum Rating

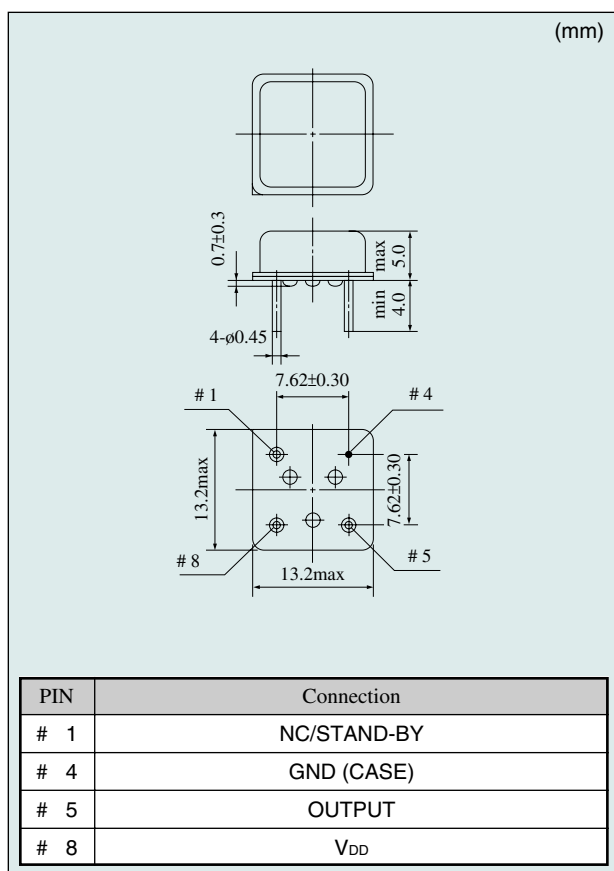
Supply Voltage (V_{DD}) -0.5~+7.0V DC

Storage Temperature Range -55~+125°C

Item	Model	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349
Frequency Range	(MHz)	22~23	23~26	26~30	30~34	34~36	36~40	40~44	44~51	51~60	60~70
Supply Voltage (V _{DD})	(V)	+5±10%									
Current Consumption	(mA) +5VDC, 25°C	15 (TYP) 25 (max)			20 (TYP) 30 (max)			25 (TYP) 35 (max)			
V _{OL} max/V _{OH} min	(V)	0.4/2.4 I _{OL} =8mA I _{OH} =-8mA									
Tr max/Tf max	(ns)	5/5 (Value between 0.4V and 2.4V)									
Duty Cycle	(%)	40~60 (at 1.4V)									
Fanout (gate)	TTL GATE	5									
Stand-by Function	Tri-state	Yes									

Note: If requested, Duty Cycle 45~55%, No stand-by function version #5 pin : H level or no osc, #1 pin : L level (+0.8V max) is available.
If requested, Operating Temp. Range -40 to +85°C is available. Please contact us for detailed specifications.

■ 1340 Series Outline

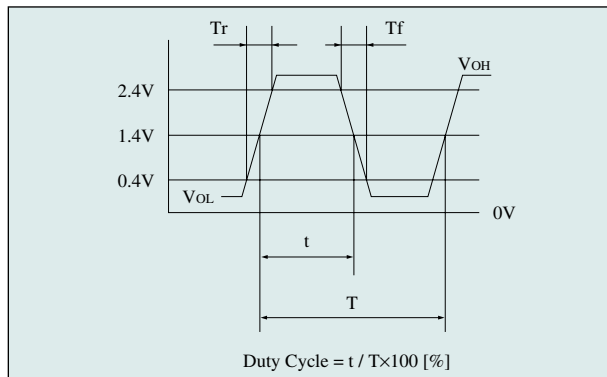


■ Option of Frequency Stability

Frequency stability (×10 ⁻⁶)	±50	±100
Op. Temp.		
0~+70°C	A	B
-10~+70°C	—	G
-20~+70°C	—	M

Standard

■ Output Wave <TTL>



■ Stand-by Function <Tri-state>

# 1 pin input	# 5 pin output
H level (+2.2 Vmin) or open	Operating
L level (+0.8 Vmax)	High impedance