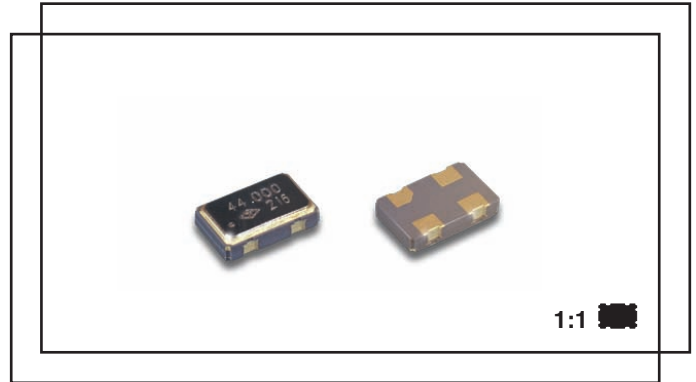


Type OV clock oscillator smd ceramic package (0.3456 ~ 125)MHz

- # tight symmetry
- # (5.0 x 3.2)mm footprint
- # +(1.8, 2.5, 3.3, 5.0)Vd.c. supply
- # RoHS compliant



Electrical specification

Case style V: (5.0 x 3.2)mm, height 1.3mm max.
 Frequency range (0.6912 ~ 125)MHz: 1.8V, (0.3456 ~ 125)MHz: 2.5V/3.3V, (0.3456 ~ 75)MHz: 5V
 Stability * $\pm(20 \sim 100)$ ppm, temperature range dependent

Supply voltage $V_{CC} \pm 10\%$		+1.8Vd.c.	+2.5Vd.c.	+3.3Vd.c.	+5.0Vd.c.
Supply current max.	(0.3456 ~ 1.5)MHz	-	5mA	5mA	7mA
	(1.5 ~ 20)MHz	5mA	7mA	7mA	10mA
	(20 ~ 70)MHz	15mA	20mA	30mA	40mA
Rise and fall time max. **	(0.3456 ~ 20)MHz	10ns	10ns	10ns	8ns
	(20 ~ 75)MHz	6ns	6ns	6ns	5ns

Operating temperature (-10 +60) $^{\circ}$ C ~ (-40 +85) $^{\circ}$ C
 Storage temperature (-55 +125) $^{\circ}$ C
 Output TTL, CMOS
 Symmetry (45 ~ 55)%, (40 ~ 60)%
 Tri-state fixed frequency or tri-state

* inclusive of calibration tolerance at +25 $^{\circ}$ C, temperature tolerance, supply voltage variation, load variation, first year ageing(10 years for types S and J), shock and vibration.
 ** measured, with an output load of 15pF, between (10 ~ 90)% V_{CC}

Ordering information

Example type OV smd clock oscillator, 25.00MHz, +3.3Vd.c., fixed frequency, ± 25 ppm(-20 +70) $^{\circ}$ C, output CMOS 15pF, symmetry (45 ~ 55)%

TFC PART NUMBER OV 25.0M E F D C J

'OV' type number: OV = smd clock oscillator type OV
 '25.0M' frequency: 25.0M = 25.00MHz, frequency range from (0.3456 ~ 125)MHz
 'C' supply voltage: C = +5Vd.c., E = +(2.8 ~ 3.3)Vd.c., J = +2.5Vd.c., K = +1.8Vd.c.
 'F' tri state: F = fixed frequency, T = tri-state function on pin #1
 'D' frequency stability: D = ± 25 ppm
 'C' temperature range: C = (-20 +70) $^{\circ}$ C
 'J' output logic and symmetry: J = CMOS 15pF, (45 ~ 55)%

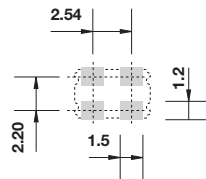
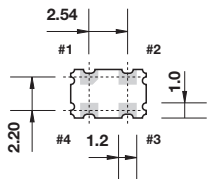
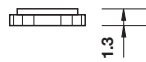
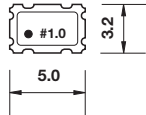
Frequency stability C: ± 20 ppm, D: ± 25 ppm, G: ± 50 ppm, H: ± 100 ppm, S: ± 32 ppm*, J: ± 50 ppm*
 *including 10 years ageing

Temperature range I: (-10 +60) $^{\circ}$ C, C: (-20 +70) $^{\circ}$ C, L: (-40 +85) $^{\circ}$ C

Output A: TTL(45 ~ 55)%, E: TTL 50pF(45 ~ 55)%, J: CMOS 15pF(45 ~ 55)%, F: CMOS 50pF(45 ~ 55)%
 B: TTL(40 ~ 60)%, R: TTL 50pF(40 ~ 60)%, K: CMOS 15pF(40 ~ 60)%, G: CMOS 50pF(40 ~ 60)%

Type OV clock oscillator

OV dimensions(mm) shown twice full size



Suggested land pattern

Pads are gold, 2.5µ min., over nickel, suitable for vapour phase or reflow soldering, preheat +150°C for 2 minutes, peak temperature +250°C for 30 seconds max.

Connect 0.01µF capacitor between Vcc and ground

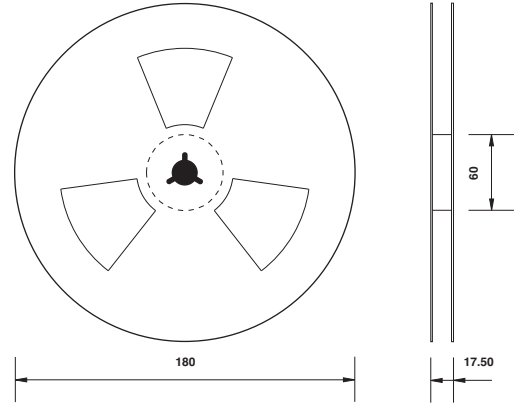
Pads viewed from bottom

- #1 output inhibit/N.C.
- #2 ground
- #3 output
- #4 Vcc

Output inhibit:

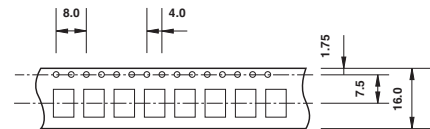
- #1 high: output oscillation
- #1 low: output high impedance

Tape and reel dimensions(mm)



Centre hole diameter 13.0mm, slot width 2mm spaced at 120°
Reel quantity 1000 pieces, leader tape 400mm minimum

Trailer tape: 10 empty compartments minimum



Tape transport hole diameter 1.5mm, 4.0mm pitch
Compartment size 3.64mm x 5.59mm, depth 1.29mm
Component spacing on 8.0mm pitch

Environmental test conditions

Mechanical shock	1500g, half sine wave, 0.5ms, 3 directions	MIL STD 883D 2002.3, condition A
Thermal shock	(-55 ~ +125)°C, 20 cycles	MIL STD 883D 1011.9, condition B
Vibration	(10 ~ 2000)Hz, 1.25mm, sine wave, 20g, each of three planes, duration 4 hours	MIL STD 883D 2005.2, condition B
Solderability	+245°C ±5°C, 5 seconds ±0.5 seconds	MIL STD 883D 2003.7
Fine leak	Mass spectrometer leak rate less than 2 ¹⁰⁻⁸ atm.cc/sec. helium	MIL STD 883D 1014.9, condition A
Gross leak	Leak test in de-ionised water, vacuum 70cm/Hg	
Humidity	85% relative humidity, +85°C, 500 hours	JIS-C 7022 B-5, condition C