

MAIN FEATURE

- 32.768KHz standard • 1.8V, 2.5V, 3.3V and 5.0V option
- Industry standard option

APPLICATION

- PDA, PND, DSC, Smart phone, WiLAN, Bluetooth and more

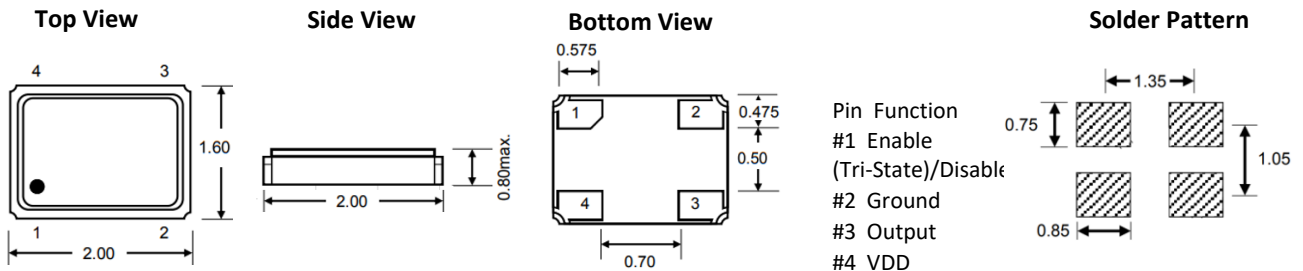


L2.0*W1.6*H0.80mm

STANDARD SPECIFICATION

Parameter	Value			Unit	Condition
	Min.	Type	Max.		
Supply Voltage	-	3.3	-	V	see p/n guide or Specify
Frequency Range	-	32.768	-	KHz	
Overall Freq. Tolerance	-	±50		ppm	see p/n guide or Specify
Operating Temp. Range	-0	-	+70	°C	see p/n guide or Specify
Output (HCMOS)	VOH	90%	-	V	@90% x VDD
	VOL	-	10%	V	@10% x VDD
	Load	-	15	pF	see p/n guide or Specify
Enable/Disable Function:	-	Tri-State	-		@ Control via pin 1 or see p/n guide
Symmetry	40	-	60		see p/n guide or Specify
Startup Time	-	-	10	ms	
Supply Current	-	-	240	µA	
Rise/ Fall time	-	-	200	ns	
Storage Temperature Range	-55	-	+125	°C	
Aging per year	-	±5		ppm	

DIMENSION (+/-0.1mm)



PART NUMBER GUIDE

Example: TGS COK2131BDH03TLF-32K768

[Part Number and Part Code Structure](#)

TGS	COK21	3 1	B D H	03	T	LF XX	-32K768
1	2	3 4	5 6 7	8	9	10 11	12

- 1) TGS: Company Code
- 2) COK21: KHz SMD Oscillator, 4 pads, L2.0*W1.6*H0.80mm
- 3) 3: Supply Voltage, 3: 3.3V; 2: 2.5V; 1: 1.8V; 5: 5.0V
- 4) 1: Enable/Disable Function, 1: Tri-state Via Pin 1; 0: N/A
- 5) B: Overall Frequency tolerance, A-+/-25ppm; B: +/-50ppm; C: +/-100ppm; J-+/-20ppm or Specify
- 6) D: Operating Temp. Range, D-0~70 °C; E: -10 ~+60°C; F: -20 ~+70 °C; G: -40 ~+85 °C or Specify
- 7) H: Symmetry H: 40/60; I: 45/55
- 8) 03: Output Load: 03: HCMOS//15pF; 04: HCMOS//30pF; 05: HCMOS//50pF or Specify
- 9) T: Packed in Tape/Reel, 3000pcs/Reel
- 10) LF: RoHS Complaint
- 11) XX: Internal Control Code- 2 letter or digits ; Blank: N/A
- 12) 32K768: Frequency Range 32.76800KHz