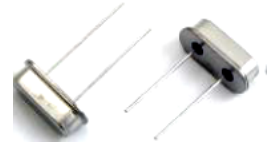


### MAIN FEATURE

- Wide Frequency Range • Low Cost and short lead time • 2 Pins

### APPLICATION

- IoT, HDTV, IT and consumer electronics and more

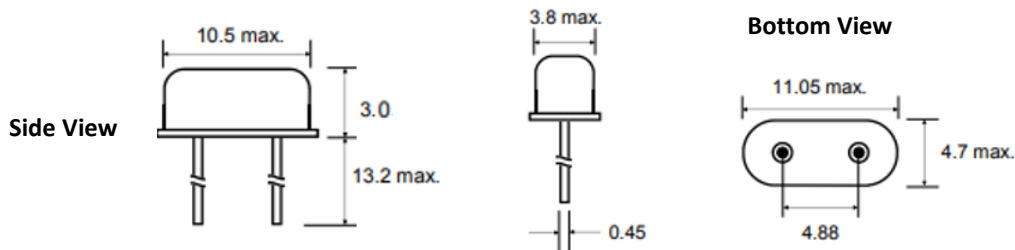


L11.05\*W4.7\*3.0mm

### STANDARD SPECIFICATION

Parameter	Value			Unit	Condition
	Min.	Type	Max.		
Frequency Range	3.0		100.00	MHz	
Oscillation Mode	AT Fund.				3 <sup>RD</sup> Overtone Option
Frequency Tolerance	-	±50		ppm@25 °C	see p/n guide for more option
Operating Temp. Range	-40	-	+85	°C	see p/n guide for more option
Storage Temp. Range	-55	-	+125	°C	
Load Capacitance (CL)	-	18	-	pF	see p/n guide for more option
Frequency Stability	-	±50	-	ppm	see p/n guide for more option
Equivalent Series Resistance (ESR)			200	ohm	@3.000 ~ 5.0000MHz
			80		@5.001 ~ 10.000MHz
			60		@10.001 ~ 20.000MHz
			40		@20.001 ~ 36.00MHz
			100		@27.001 ~ 50.00MHz, 3 <sup>rd</sup> OT
			80		@50.01 ~ 100.00MHz, 3 <sup>rd</sup> OT
Drive Level	-	-	100	µW	
Shunt Capacitance	-	-	7.0	pF	
Insulation Resistance	500	-		mW	DC/100V +-10%
Aging per year	-	±3		ppm	@25 °C

### DIMENSION (+/-0.2 mm)



### PART NUMBER GUIDE

Example: TGS CSS 8M0A50-18-50-40-80 BLF

[Part Number and Part Code Structure](#)

TGS	CSS	8M0	A	50	-18	-50	-40	-80	B	LF	XX
1	2	3	4	5	6	7	8	9	10	11	12

- 1) TGS: Company Code
- 2) CSS: MHz Thru Hole Crystal, 2 pins, L11.05\*W4.7\*3.0mm
- 3) 8M0: Frequency Range 8.000MHz or specify detail frequency range
- 4) A: Oscillation Mode, A: AT Fund. 3: 3<sup>rd</sup> Overtone
- 5) 50: Freq. tolerance, 50: +/-50ppm; 10: +/-10ppm; 20: +/-20ppm; 30: +/-30ppm or Specify detail value
- 6) 18: Load Capacitance(CL), 15: 15pF; 18: 18pF; 20: 20pF; 30: 30pF or Specify detail CL value
- 7) 50: Frequency Stability, 50: +/-50ppm; 10: +/-10ppm; 20: +/-20ppm; 30: +/-30ppm or Specify detail value
- 8) 40: Operating Temp. Range, 40: -40°C~+85°C; 10: -10°C~+60°C; 20: -20°C~+70°C; or Specify detail value
- 9) 80: Equivalent Series Resistance (ESR), 80: 80 ohm Max.
- 10) B: Package Code, B: in Bulk T: in Tape and Box.
- 11) LF: RoHS Compliant
- 12) XX: Internal Control Code- 2 letter or digits ; Blank: N/A

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