

EC1G-30-10.000M TR

[Click part number to visit Part Number Details page](#)

REGULATORY COMPLIANCE (Data Sheet downloaded on Oct 27, 2017)



ITEM DESCRIPTION

Quartz Crystal Resonator HC49/US Short Thru-Hole 2.5mm Height Metal Resistance Weld Seal 10.000MHz ± 15 ppm at 25°C, ± 30 ppm over -20°C to +70°C 30pF Parallel Resonant

ELECTRICAL SPECIFICATIONS

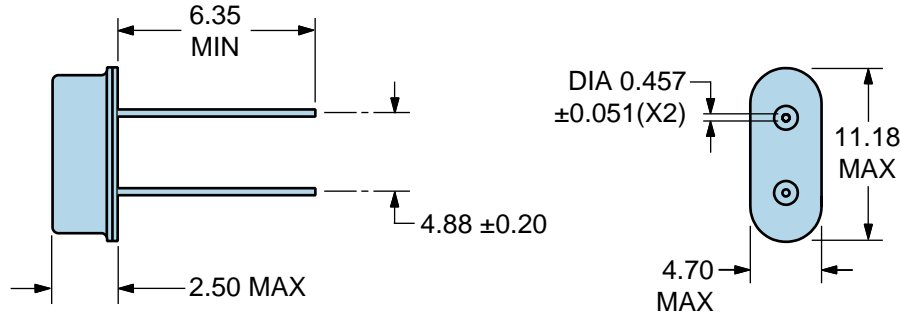
Nominal Frequency	10.000MHz
Frequency Tolerance/Stability	± 15 ppm at 25°C, ± 30 ppm over -20°C to +70°C
Aging at 25°C	± 5 ppm/year Maximum
Load Capacitance	30pF Parallel Resonant
Shunt Capacitance (C0)	7pF Maximum
Equivalent Series Resistance	70 Ohms Maximum
Mode of Operation	AT-Cut Fundamental
Drive Level	1mWatt Maximum
Storage Temperature Range	-40°C to +85°C
Insulation Resistance	500 Megaohms Minimum at 100Vdc

ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

Fine Leak Test	MIL-STD-883, Method 1014 Condition A
Gross Leak Test	MIL-STD-883, Method 1014 Condition C
Lead Integrity	MIL-STD-883, Method 2004
Mechanical Shock	MIL-STD-202, Method 213 Condition C
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003
Temperature Cycling	MIL-STD-883, Method 1010
Vibration	MIL-STD-883, Method 2007 Condition A

EC1G-30-10.000M TR [Click part number to visit Part Number Details page](#)

MECHANICAL DIMENSIONS (all dimensions in millimeters)

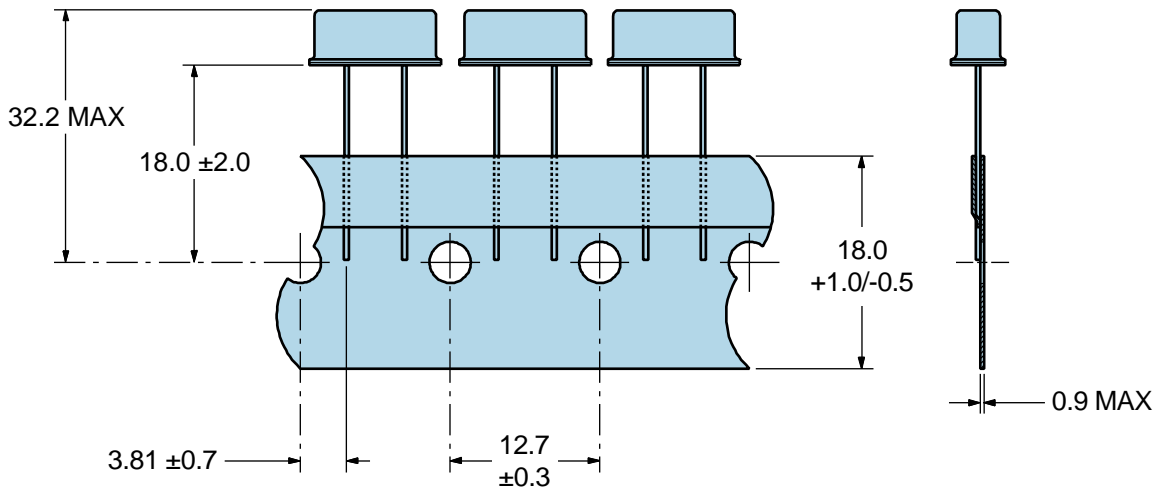


LINE	MARKING
1	E10.000M <i>E=Ecliptek Designator</i> <i>M=Frequency Unit of Measure</i>

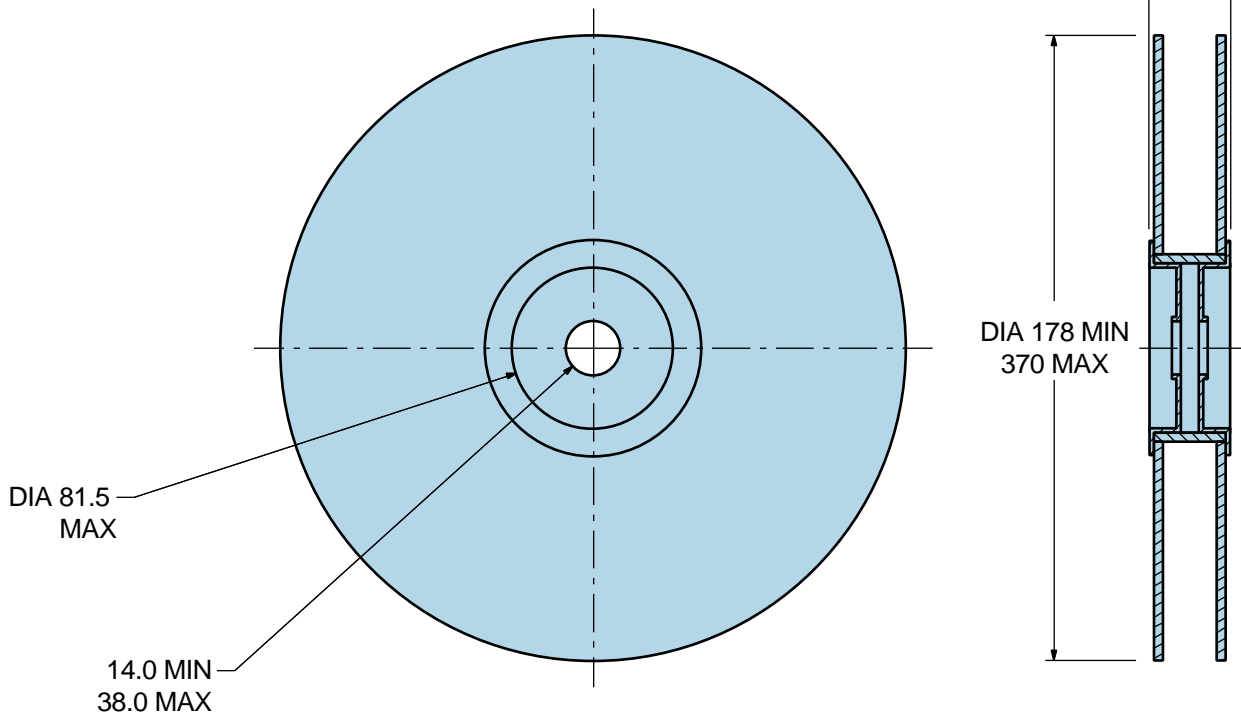
EC1G-30-10.000M TR

Tape & Reel Dimensions

All Dimensions in Millimeters
Compliant to EIA-481



*Compliant to EIA 468B



EC1G-30-10.000M TR [Click part number to visit Part Number Details page](#)

Recommended Solder Reflow Methods



High Temperature Solder Bath (Wave Solder)

Ts MAX to TL (Ramp-up Rate) 3°C/Second Maximum

Preheat

- Temperature Minimum (Ts MIN) 150°C
 - Temperature Typical (Ts TYP) 175°C
 - Temperature Maximum (Ts MAX) 200°C
 - Time (ts MIN) 60 - 180 Seconds

Ramp-up Rate (TL to TP) 3°C/Second Maximum

Time Maintained Above:

- Temperature (TL) 217°C
 - Time (tL) 60 - 150 Seconds

Peak Temperature (TP) 260°C Maximum for 10 Seconds Maximum

Target Peak Temperature (TP Target) 250°C +0/-5°C

Time within 5°C of actual peak (tp) 20 - 40 Seconds

Ramp-down Rate 6°C/Second Maximum

Time 25°C to Peak Temperature (t) 8 Minutes Maximum

Moisture Sensitivity Level Level 1

EC1G-30-10.000M TR [Click part number to visit Part Number Details page](#)

Recommended Solder Reflow Methods



Low Temperature Solder Bath (Wave Solder)

Ts MAX to T _L (Ramp-up Rate)	5°C/Second Maximum
Preheat	
- Temperature Minimum (T _s MIN)	N/A
- Temperature Typical (T _s TYP)	150°C
- Temperature Maximum (T _s MAX)	N/A
- Time (t _s MIN)	30 - 60 Seconds
Ramp-up Rate (T_L to T_P)	5°C/Second Maximum
Time Maintained Above:	
- Temperature (T _L)	150°C
- Time (t _L)	200 Seconds Maximum
Peak Temperature (T_P)	245°C Maximum
Target Peak Temperature (T_P Target)	245°C Maximum 1 Time / 235°C Maximum 2 Times
Time within 5°C of actual peak (t_p)	5 Seconds Maximum 1 Time / 15 Seconds Maximum 2 Times
Ramp-down Rate	5°C/Second Maximum
Time 25°C to Peak Temperature (t)	N/A
Moisture Sensitivity Level	Level 1

Low Temperature Manual Soldering

185°C Maximum for 10 Seconds Maximum, 2 times Maximum.

High Temperature Manual Soldering

260°C Maximum for 5 Seconds Maximum, 2 times Maximum.