

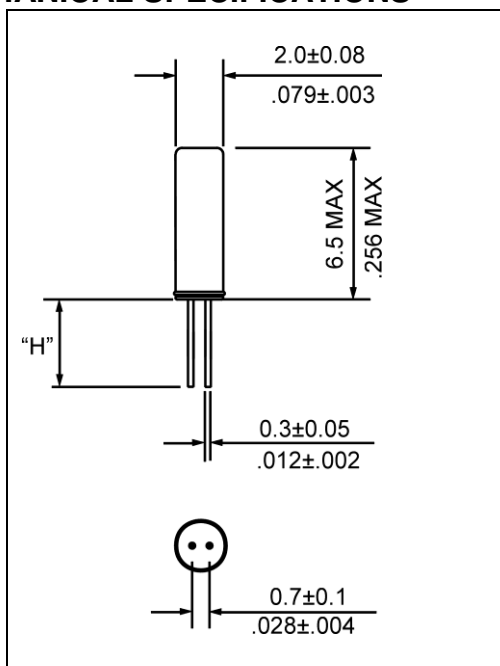
ELECTRICAL SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE AT 25°C, Max	±20 ppm
TURNOVER TEMPERATURE	25°C ± 5°C
PARABOLIC CURVATURE CONSTANT	-0.034 ppm/Δ°C ²
LOAD CAPACITANCE	12.5 pF
EQUIVALENT SERIES RESISTANCE, Max	35 kΩ
DRIVE LEVEL, Max	1.0 μW
MOTIONAL CAPACITANCE, Typical	2.6 fF
SHUNT CAPACITANCE, Typical	1.45 pF
CAPACITANCE RATIO	560
AGING (FIRST YEAR), Max	±5 ppm
QUALITY FACTOR, Typical	70000
INSULATION RESISTANCE, minimum	500 MΩ
OPERATING TEMPERATURE RANGE	-20°C to +70°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
SHOCK RESISTANCE	±5ppm max 75 cm drop test in 3 axes onto a hard wood surface or 3000gx0.3msx1/2 sinewave in 3 axes



Photo is not actual part

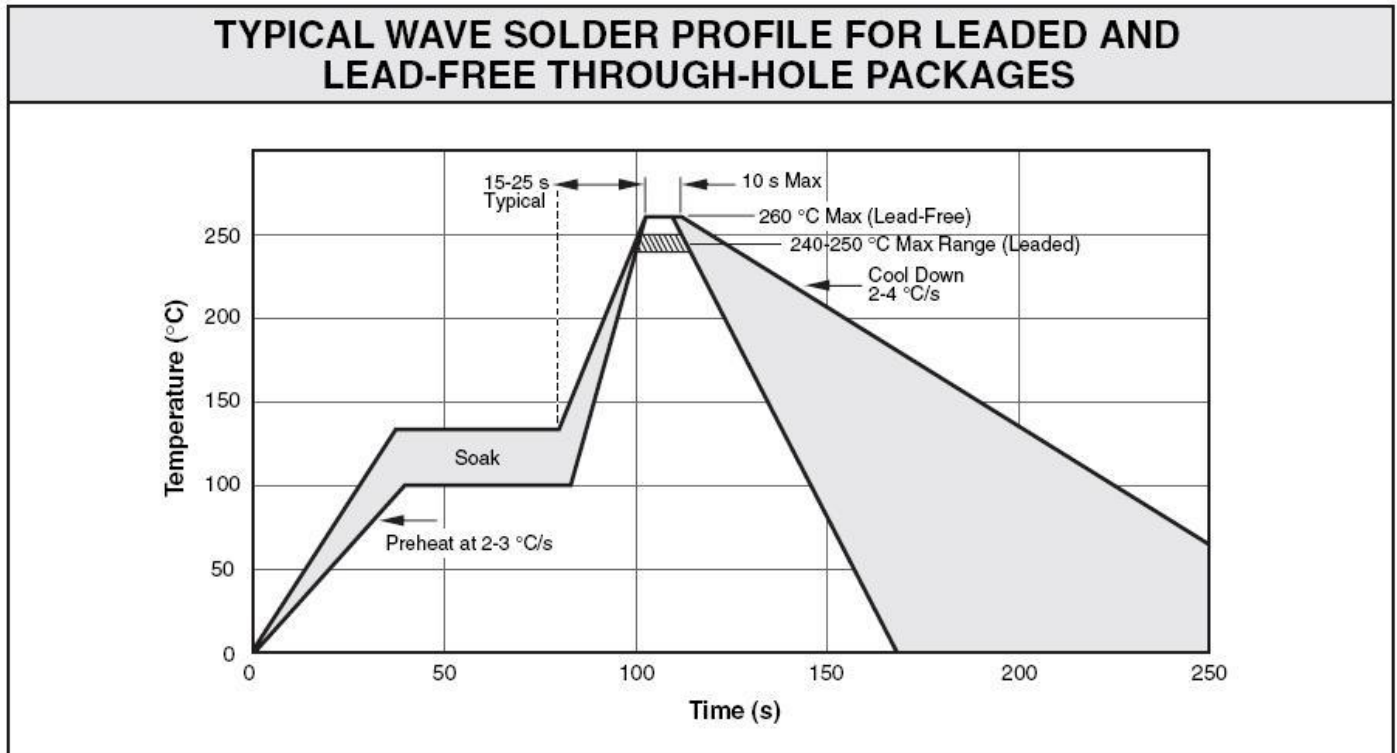
MECHANICAL SPECIFICATIONS



“H” Leads cut to 6.1 mm ±0.2mm

NOTE: Hand solder by terminals only max 245°C for 4 seconds

● WAVE SOLDER PROFILE



Wave Solder profile		
Profile Feature	SnPb eutectic	Pb-Free
Average ramp-up rate	~200°C/second	~200°C/second
Heating Rate during preheat	typical 1-2°/second max 4°/second	typical 1-2°/second max 4°/second
Final preheat temperature, T_S	~130°C	~130°C
Peak temperature, T_P	235°C	260°C
Time within +0°C / -5°C of actual temperature, t_P	10 seconds	10 seconds
Ramp-down rate	5°C/second max.	5°C/second max.

NOTE: This document should serve as recommendation only. Other parameters may also affect soldering, this profile does not guarantee absolute success. Soldering profile should be determined by the equipment manufacturer and customers' process engineer.

● ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS-2	5/6 COMPLIANT, EXEMPTION 7a
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn



• MARKING

x3FmyR

x – Internal Production ID code

m – Month code

y – Year code

YEAR CODE	
Year	Code
2011	1
2012	2
2013	3
2014	4
2015	5
2016	6
2017	7
2018	8
2019	9

MONTH CODE	
MONTH	CODE
JANUARY	A
FEBRUARY	B
MARCH	C
APRIL	D
MAY	E
JUNE	F
JULY	G
AUGUST	H
SEPTEMBER	J
OCTOBER	K
NOVEMBER	L
DECEMBER	M

• APPROVAL

RALTRON	
DRAWN BY:	LP, March 08, 2017
APPROVED BY:	JL, March 08, 2017
REVISION:	A, Revised Format
	B, Changed from Reflow to Wave solder, FP, 22 March 2017