

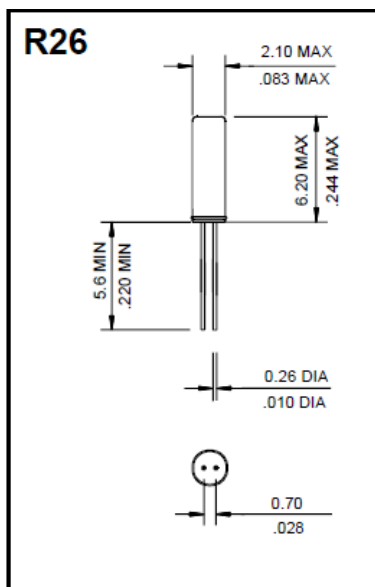
## ELECTRICAL SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE AT 25°C	±20 ppm max
TURNOVER TEMPERATURE	25°C ± 5°C
PARABOLIC CURVATURE CONSTANT	-0.034 ppm/Δ°C <sup>2</sup>
LOAD CAPACITANCE	12.5 pF
EQUIVALENT SERIES RESISTANCE	35 kΩ max
DRIVE LEVEL, Max	1.0 μW
MOTIONAL CAPACITANCE	0.003 pF typ
SHUNT CAPACITANCE	1.35 pF typ
CAPACITANCE RATIO	450
AGING (FIRST YEAR)	±3 ppm
QUALITY FACTOR	70000 typ
INSULATION RESISTANCE	500 MΩ min
OPERATING TEMPERATURE RANGE	-20°C to +70°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
SHOCK RESISTANCE	±5 ppm max 75 cm drop test onto a hard surface



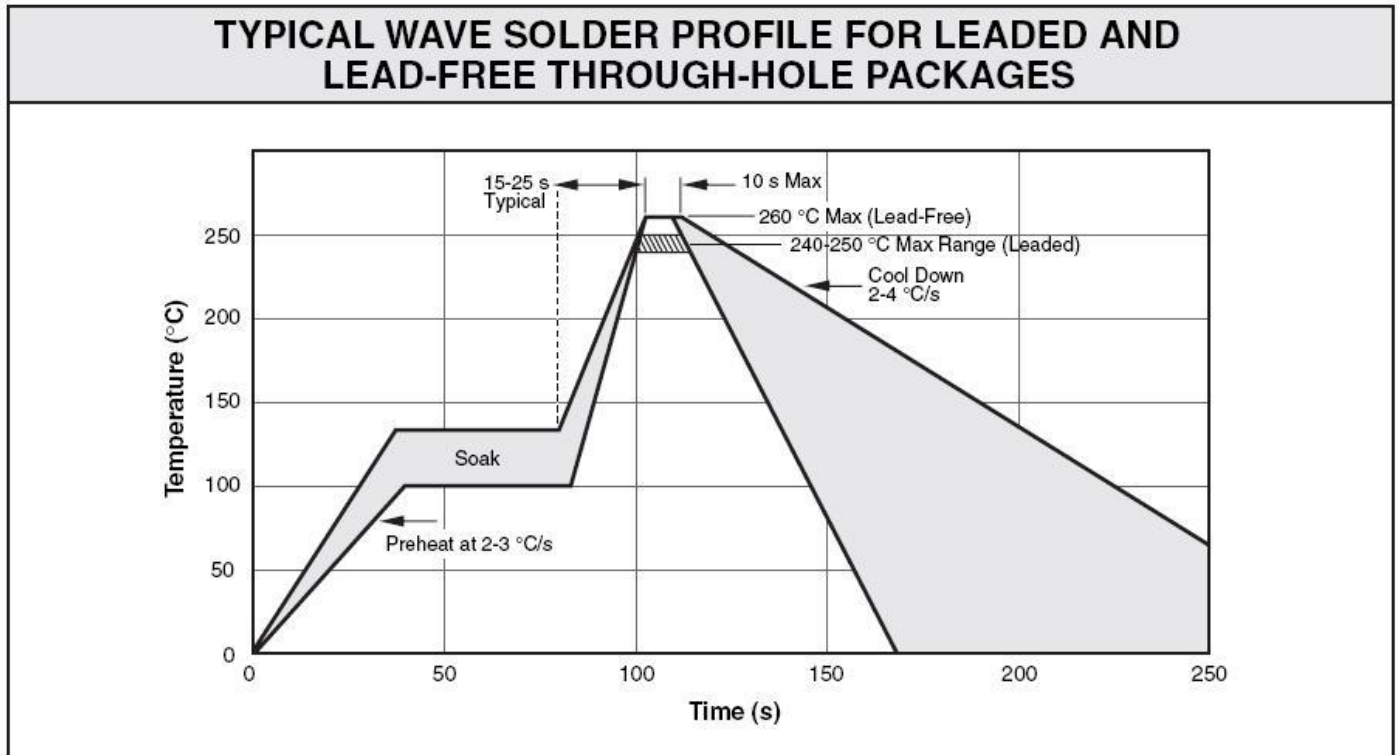
Photo is not actual part

## MECHANICAL SPECIFICATIONS



NOTE: Solder by terminals only max 245°C for ten 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 <sub>S</sub>	~130°C	~130°C
Peak temperature, T <sub>P</sub>	235°C	260°C
Time within +0°C / -5°C of actual temperature, t <sub>P</sub>	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	Compliant
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

DRAWN BY:	F. Parra, 31 August 2015
APPROVED BY:	F. Parra, 31 August 2015
REVISION:	A, Revised Format
	B, Updated to current spec levels KJ 6/21/18

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