

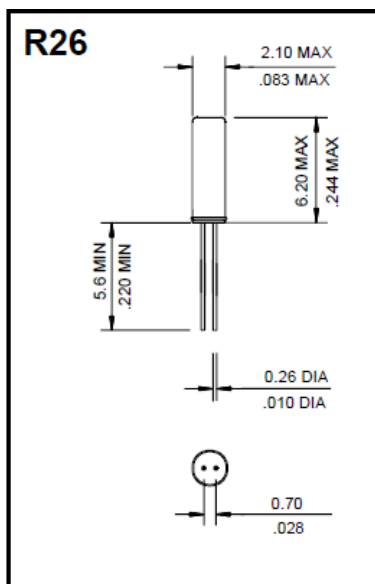
ELECTRICAL SPECIFICATIONS

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	0.003 pF
SHUNT CAPACITANCE, Typical	1.35 pF
CAPACITANCE RATIO	450
AGING (FIRST YEAR)	±3 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 surface or 3000gx0.3msx1/2 sinewave in 3 axes



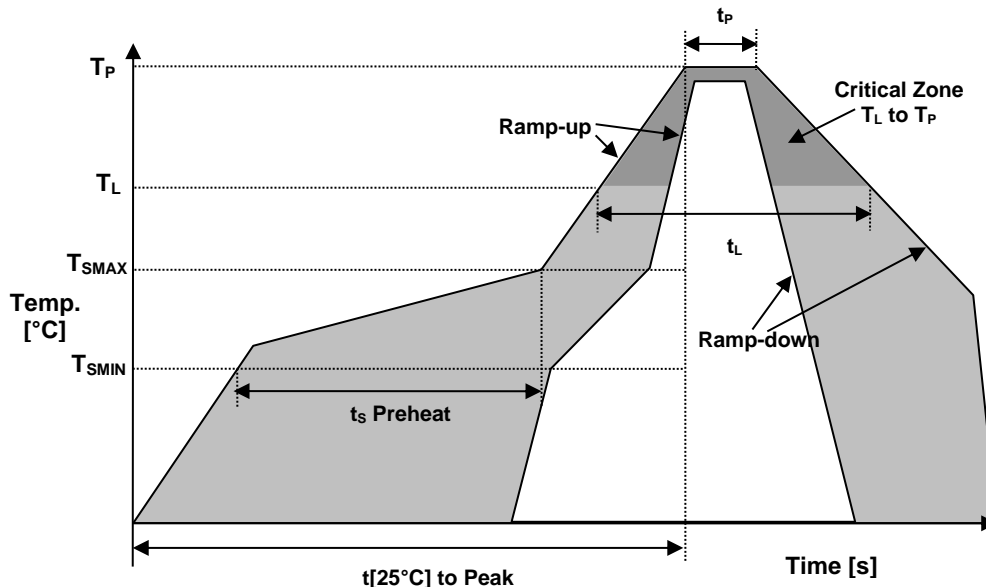
Photo is not actual part

MECHANICAL SPECIFICATIONS



NOTE: Solder by terminals only max 245°C for ten seconds

● REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	200°C
Time (T_{SMIN} to T_{SMAX})	t_s	60-180 sec.
Temperature	T_L	217°C
Peak Temperature	T_P	245°C
Ramp-up rate	R_{UP}	3°C/s max.
Ramp-down rate	R_{DOWN}	6°C/s max.
Time within 5°C of Peak Temperature	t_p	10 s
Time $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ to Peak	480 s
Time	t_L	60-150 s

● 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

DRAWN BY:	F. Parra, 31 August 2015
APPROVED BY:	F. Parra, 31 August 2015
REVISION:	A, Revised Format