



ROHS-Compliant Product

V-53000P/L



1. Specification		
Frequency Range	30 MHz to 250 MHz	
Standard frequencies:	122.88, 125.00, 155.52, 156.25 MHz	
Supply voltage V_S :	+3.3 V \pm 5 %	
Temperature range options -20 °C to + 70 °C: -40 °C to + 85 °C	2070 4085	
Frequency stability options ⁽¹⁾ $\leq \pm 25$ ppm (-20 °C to +70 °C only): $\leq \pm 50$ ppm:	D F	
Note (1): overall frequency stability includes: Initial tolerance, 1st year aging, frequency stability vs. temperature, vs. supply voltage changes \pm 5%, vs. load changes \pm 5%		
Control voltage range V_C :	+0.3 V to +3.0 V	
Absolute pulling range (APR) referred to $f @ V_C = +1.65$ V:	$\geq \pm 50$ ppm	
Modulation bandwidth (3 dB cut-off freq.):	≥ 10 kHz	
Control voltage input impedance:	≥ 1 MOhm	
Transfer function / linearity:	Positive / 10 %	
Start-up time:	≤ 3 ms	
RMS Phase Jitter (12 kHz - 20 MHz):	≤ 1 ps rms	
Output signal type options:	(LV)PECL	LVDS
Frequency range:	20 MHz ... 200 MHz	20 MHz ... 175 MHz
V_H : V_L : load: duty cycle: rise time, fall time 20 % / 80 %:	$\geq +2.275$ V, $\leq +1.680$ V 50 Ohm 45 / 55 % ≤ 1.0 nsec	$\geq +1.6$ V, $\leq +0.9$ V 100 Ohm 40 / 60 % ≤ 1.0 nsec
Output Enable / Disable Enable: Disable:	Low (≤ 30 % V_S) or N.C. High (≥ 70 % V_S)	
Current consumption @ $f_N = 20$ MHz ... 65 MHz @ $f_N = 65$ MHz ... 200 MHz	≤ 85 mA ≤ 100 mA	≤ 45 mA ≤ 75 mA

4				KVG Quartz Crystal Technology GmbH P.O.Box 61 D-74924 Neckarbischofsheim Tel. +49 (0) 7263 / 648-0 Fax. +49 (0) 7263 / 6196
3				
2	Frequency Range amended	19.03.2018	Rudolph	
1		30.11.2016	Rudolph	
ED	Description	Date	Name	

2. Environmental conditions

According to KVG Product Qualification Procedure AA-QM-200

Storage temperature range:

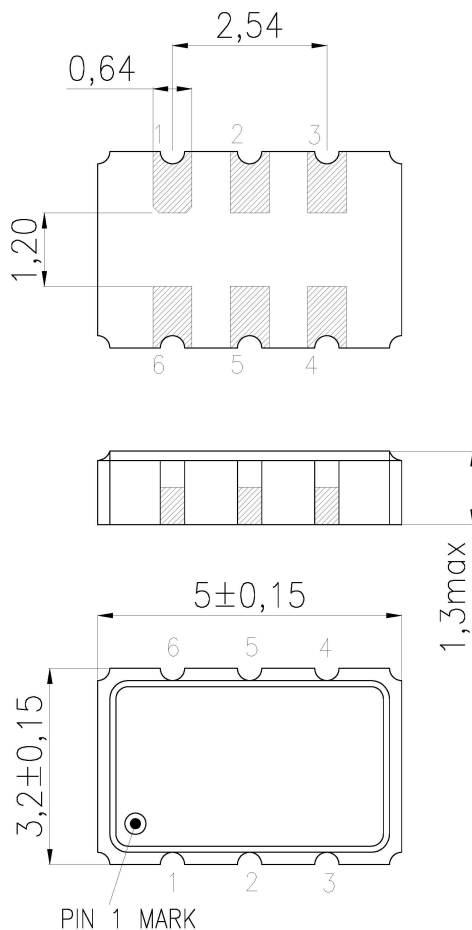
-55 °C ... +125 °C

3. Marking

Manufacturer's name, date code (week/year)
Specification
Center frequency

4. Case

Case style: BF193-1.3B

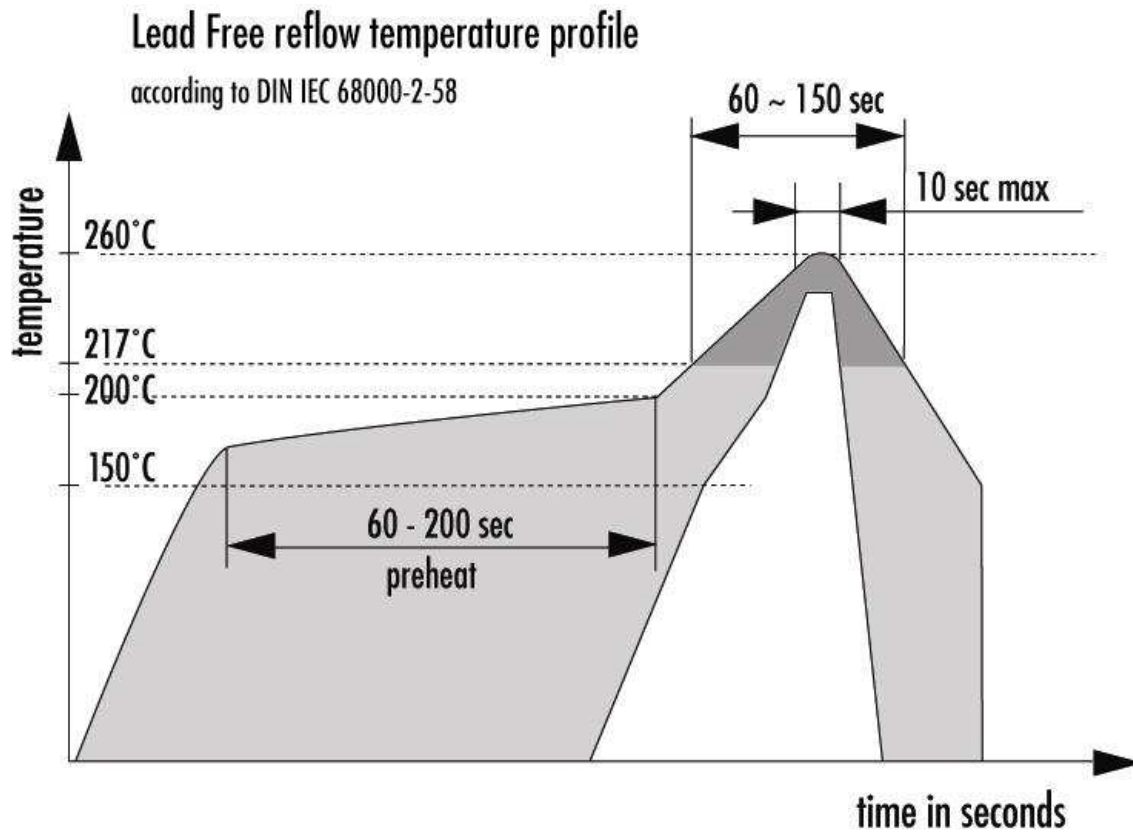


Pin configuration

1. Control voltage V_C
2. E/D control input
3. GND, Case
4. RF output
5. Compl. RF output
6. Supply voltage V_S

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5. Reflow soldering profile



6. Ordering Information

Type & Package code	Supply voltage	Temperature range LOW/HIGH	Frequency stability	Output voltage	RoHS compl.	Nominal frequency
V-53: BF193-1.3B	A: 3.3 V	2070: -20 / +70 °C 4085: -40 / +85 °C	D: ± 25 ppm F: ± 50 ppm	P: LVPECL L: LVDS	-LF	- XXX.YYY MHz

Example: V-53A4085FL-LF-155.520 MHz

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