



ROHS-Compliant Product

O-3000SC Series

1. Specification			
Nominal frequency range :	5.0 ... 120.0 MHz		
Type:	3400	3500	3600
Supply voltage V_S :	5.0 V \pm 5 %	3.3 V \pm 5 %	12.0 V \pm 5 %
Frequency stability vs. temperature options:			
$\leq \pm 2 \times 10^{-9}$ vs. 0 °C to +50 °C:	341x	351x	361x
$\leq \pm 3 \times 10^{-9}$ vs. -10 °C to +60 °C:	342x	352x	362x
$\leq \pm 5 \times 10^{-9}$ vs. -20 °C to +70 °C:	343x	353x	363x
$\leq \pm 1 \times 10^{-8}$ vs. -40 °C to +85 °C:	344x	354x	364x
$\leq \pm 3 \times 10^{-8}$ vs. -40 °C to +85 °C:	345x	355x	365x
Aging stability options (after 30 days of operation)			
$\leq \pm 1 \times 10^{-9}$ / day; $< \pm 1 \times 10^{-7}$ / year:	34x1	35x1	36x1
$\leq \pm 2 \times 10^{-9}$ / day; $< \pm 2 \times 10^{-7}$ / year:	34x2	35x2	36x2
$\leq \pm 5 \times 10^{-10}$ / day; $< \pm 5 \times 10^{-8}$ / year:	34x3	35x3	36x3
Frequency stability vs. supply voltage changes $V_S \pm 5\%$: vs. load changes $\pm 5\%$:	$\leq \pm 5.0 \times 10^{-9}$ $\leq \pm 1.0 \times 10^{-9}$		
Frequency control by ext. voltage 0 V ... V_{REF} :	$\geq \pm 0.8$ ppm $^*) \geq \pm 1$ ppm	$^*) \geq \pm 0.8$ ppm	$\geq \pm 1$ ppm
Transfer function / linearity:	positive / 10 %		
Reference Voltage V_{REF} :	+4 V \pm 5 %	+3 V \pm 5 %	+10 V \pm 5 %
Power consumption @ 25°C: during warm-up : steady state :	≤ 3.5 W ≤ 1.5 W		
Warm-up time for a typical accuracy of $< \pm 5 \times 10^{-8}$ @ +25°C referred to final frequency after 1 hour:	≤ 5 min		
Output voltage / Load Option H : Option S :	HCMOS / 1 kOhm // 15 pF Sinewave / ≥ 3 dBm / 50 Ohm		
Phase noise (typical for 10MHz): 10 Hz 100 Hz 1 kHz 10 kHz	-110 dBc / Hz -130 dBc / Hz -145 dBc / Hz -155 dBc / Hz		
Storage temperature range:	-45 °C ... +90 °C		

**) Depends on nominal frequency*

4	Frequency Control 3400, 3500	09.06.10	M. Zupan	KVG Quartz Crystal Technology GmbH P.O. Box 61 D-74924 Neckarbischofsheim Tel. +49 (0) 7263 / 648-0 Fax. +49 (0) 7263 / 6196
3	Warm up accuracy	28.10.09	M. Zupan	
2	Frequency control 3500	11.06.08	M. Zupan	
5	Ref. volt. 3600	13.09.10	Rudolph	
ED	Description	Date	Name	



ROHS-Compliant Product

O-3000SC Series

2. Environmental conditions

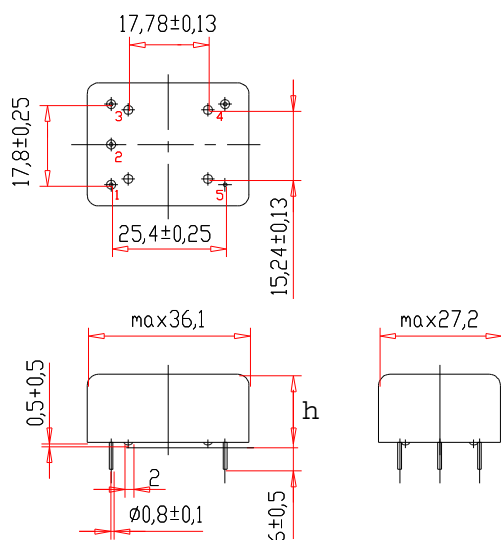
According to KVG Product Qualification Procedure AA-QM-200

3. Marking

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

4. Case

Case style: BF9-IS



max. height incl. Stand-off:
 Standard version: **12.7 mm**
 Tight/high stability option: **20.5 mm**

1. Pin configuration

1. Control voltage V_C
2. Reference output V_{REF}
3. Supply voltage V_S
4. RF output
5. Ground, case

4	Frequency Control 3400, 3500	09.06.10	M. Zupan	KVG Quartz Crystal Technology GmbH P.O. Box 61 D-74924 Neckarbischofsheim Tel. +49 (0) 7263 / 648-0 Fax. +49 (0) 7263 / 6196
3	Warm up accuracy	28.10.09	M. Zupan	
2	Frequency control 3500	11.06.08	M. Zupan	
5	Ref. volt. 3600	13.09.10	Rudolph	
ED	Description	Date	Name	