



ROHS-Compliant Product

# O-3000AT Series



1. Specification			
Nominal frequency range :	5.0 ... 100.0 MHz		
Type:	<b>3100</b>	<b>3200</b>	<b>3300</b>
Supply voltage $V_S$ :	5.0 V $\pm$ 5 %	3.3 V $\pm$ 5 %	12.0 V $\pm$ 5 %
Frequency stability vs. temperature options:			
$\leq \pm 2 \times 10^{-8}$ vs. 0 °C to +50 °C:	<b>311x</b>	<b>321x</b>	<b>331x</b>
$\leq \pm 3 \times 10^{-8}$ vs. -10 °C to +60 °C:	<b>312x</b>	<b>322x</b>	<b>332x</b>
$\leq \pm 5 \times 10^{-8}$ vs. -20 °C to +70 °C:	<b>313x</b>	<b>323x</b>	<b>333x</b>
$\leq \pm 1 \times 10^{-7}$ vs. -40 °C to +85 °C:	<b>314x</b>	<b>324x</b>	<b>334x</b>
$\leq \pm 5 \times 10^{-8}$ vs. -40 °C to +85 °C:	<b>315x</b>	<b>325x</b>	<b>335x</b>
Aging stability options (after 30 days of operation)			
$\leq \pm 1 \times 10^{-9}$ / day; $< \pm 1 \times 10^{-7}$ / year:	<b>31x1</b>	<b>32x1</b>	<b>33x1</b>
$\leq \pm 2 \times 10^{-9}$ / day; $< \pm 2 \times 10^{-7}$ / year:	<b>31x2</b>	<b>32x2</b>	<b>33x2</b>
$\leq \pm 3 \times 10^{-9}$ / day; $< \pm 3 \times 10^{-7}$ / year:	<b>31x3</b>	<b>32x3</b>	<b>33x3</b>
Frequency stability vs. supply voltage changes $V_S \pm 5\%$ : vs. load changes $\pm 5\%$ :	$\leq \pm 1.0 \times 10^{-8}$ $\leq \pm 5.0 \times 10^{-9}$		
Frequency control by ext. voltage 0 V ... $V_{REF}$ :	$\geq \pm 3$ ppm (typical)		
Transfer function / linearity:	Positive / 10 %		
Reference Voltage $V_{REF}$ :	+4 V $\pm$ 5 %	+3 V $\pm$ 5 %	+4 V $\pm$ 5 %
Power consumption @ +25 °C: steady state: during warm-up:	$\leq 1.5$ W (2.0 W @ -40 °C) $\leq 3.5$ W (4.0 W @ -40 °C)		
Warm-up time for a typical accuracy of $\leq \pm 5 \times 10^{-8}$ @ +25°C referred to final frequency after 1 hour:	$\leq 5$ min		
Output voltage / Load Option <b>H</b> : Option <b>S</b> :	(LV)HCMOS / 1 kOhm // 15 pF Sinewave / $\geq +3$ dBm / 50 Ohm		
Phase noise: 10 Hz 100 Hz 1 kHz 10 kHz	typical for 10 MHz -90 dBc / Hz -125 dBc / Hz -140 dBc / Hz -150 dBc / Hz		
Storage temperature range:	-45°C ... +90°C		



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## 2. Environmental conditions

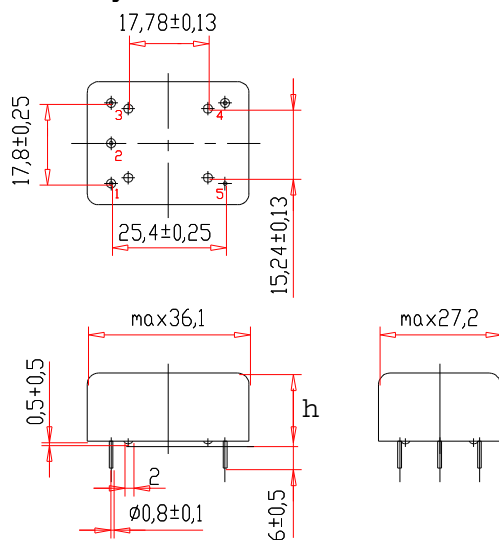
According to KVG Product Qualification Procedure AA-QM-200

## 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