CONNOR WINFIELD

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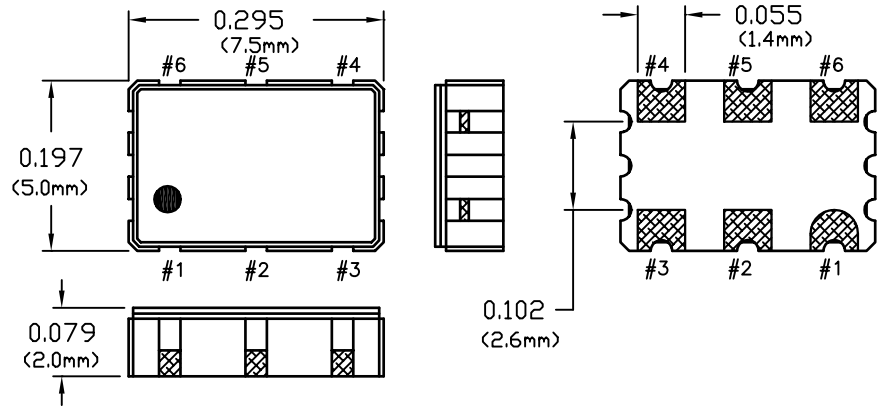
CRYSTAL CONTROLLED OSCILLATORS

3.3V SM HCMOS VCXO WITH TRI-STATE

SPECIFICATIONS			VKB61B2
Frequency Range			1.0MHz to 45MHz
Frequency Vs Temperature			±25ppm
Temperature Range			-40°C to +85°C
Output	Waveform		TTL/HCMOS Squarewave
	Load		5TTL/15pF
	Voltage	Voh	2.97V Minimum
		Vol	0.33V Maximum
	Current	Ioh	-1.0mA
		Iol	4.0mA
	Duty Cycle		40/60 Maximum @ 1.65V
	Rise/Fall Time		5nS Maximum
Tri-State Input	Output E/D Time		150nS Typical
	Enable (Vih)		2.7V Minimum
	Disable (Vil)		0.3V Maximum
			Oscillator output is enabled with no connection on pin 2
Frequency Control Input			Positive Transfer Characteristic
	Pullability		±100ppm Minimum
	Control Voltage (Vc)		0.15Vdc to 3.15Vdc
	Center Frequency		1.65Vdc ±0.5Vdc
	Monotonic Linearity		< ±10%
	Input Impedance		50K ohms Nominal
	Modulation Bandwidth		10KHz Minimum
Supply Voltage			+3.3Vdc ±0.3Vdc
Supply Current			1.0 to 30 MHz, 15 mA Maximum 30 to 45 MHz, 25 mA Maximum
Package			Hermetically sealed, leadless ceramic package

NOTE 1- A bypass capacitor of .01uF must be used between Vdd and Gnd.



PIN	CONNECTION
1	CONTROL VOLTAGE
2	TRI-STATE E/D
3	GND
4	OUT
5	N/C
6	VDD

ISSUED BY:
Dimensional Tolerance: ±.02" ±.005"

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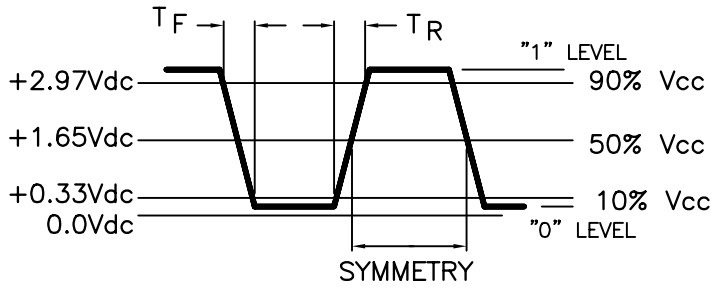
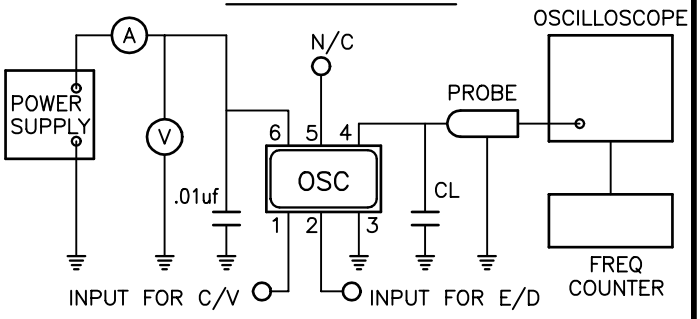
OUTPUT WAVEFORM



TEST CIRCUIT



MECHANICAL CHARACTERISTICS

FREE DROP:
The specimen shall meet electrical characteristics after tested 3 times Free Drop testing on the hard wooden board from a height of 75cm.

VIBRATION:
The specimen shall meet electrical characteristics after tested by the following conditions;
10–55Hz 1.5mm Amplitude, 55–2000Hz 20G's,
2 hours for each plane.

THERMAL SHOCK:
After applied Thermal Shock of 245°C max x 10 sec max x 2 times, or 215°C max x 180 sec max, the specimen shall meet electrical characteristics.

SOLDERABILITY: (EIAJ–RCX–0102/101 Condition 1a)

1. Flux: MIL–F–14256 (WW Rosin=25%, Isopropyl alcohol=75%)
2. Solder: QQ–S–571 (Sn=63%, Pb=37%)
3. Solder bath temperature: 235°C ±5°C.
4. Depth of immersion: Up to electrical terminal.
5. Immersing time: Within 2 sec ±0.5 sec into solder bath.

After performing the above procedures, a newly soldered coverage shall be greater than 90%.

ENVIRONMENTAL CHARACTERISTICS

TEMPERATURE CYCLE:
The specimen shall meet electrical characteristics after tested 5 cycles of –55°C/30 min & +125°C/30 min.

HERMETICAL
No bubbles appear in Flourinert (FC–43) at 125°C ±5°C, for 5 minutes.

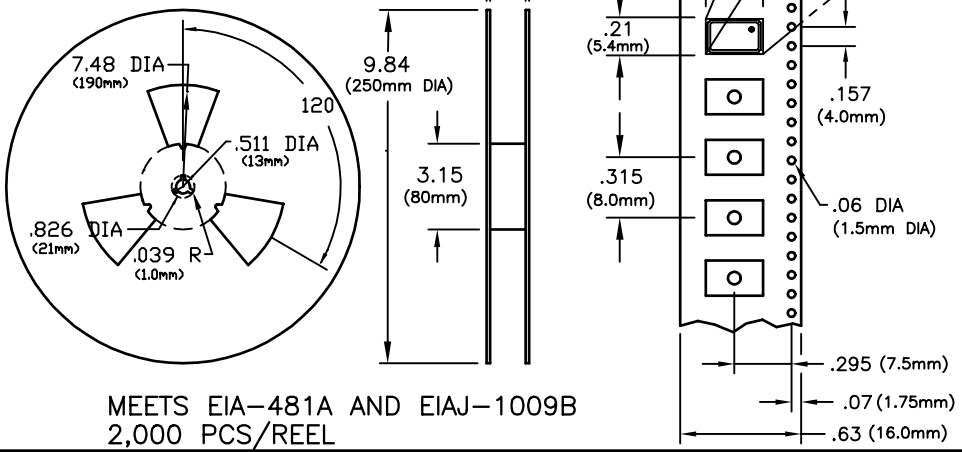
SOLVENT RESISTANCE:
Marking will withstand immersion in Isopropyl Alcohol or Trichloroethylene.

SOLDERING

GENERAL CONDITIONS:
245°C max x 10 sec max x 2 times max or
215°C max x 180 sec max x 1 time.

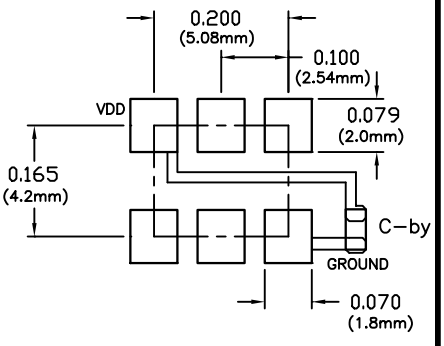
TYPICAL OPERATION DATA (Vapor phase reflow)
20 to 100 sec up to 215°C, 50 sec at 215°C then down to room temperature per 1 to 5°C/sec

TAPING AND REEL DIMENSIONS



MEETS EIA–481A AND EIAJ–1009B
2,000 PCS/REEL

SUGGESTED PAD LAYOUT



Bypass capacitor, C–by, should be ceramic capacitor ⩾ .01uf.

BULLETIN #: VX270	REV: 02	Specifications subject to change without notice.	C–W © 1999
INT PAGE 2 OF 2	DATE: 10/14/99	ISSUED BY:	Dimensional Tolerance: ±.02" ±.005"