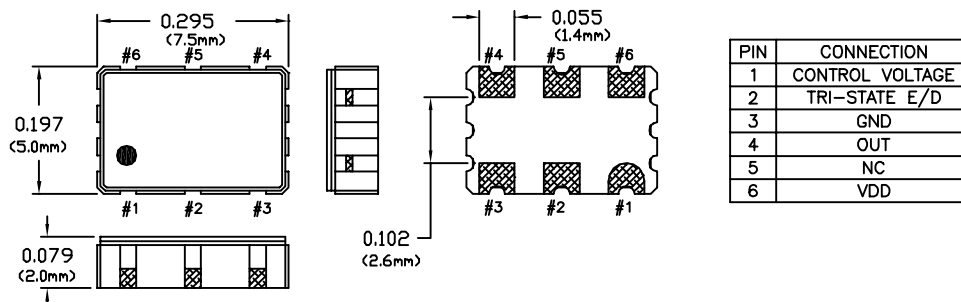


5V SM HCMOS VCXO WITH TRI-STATE

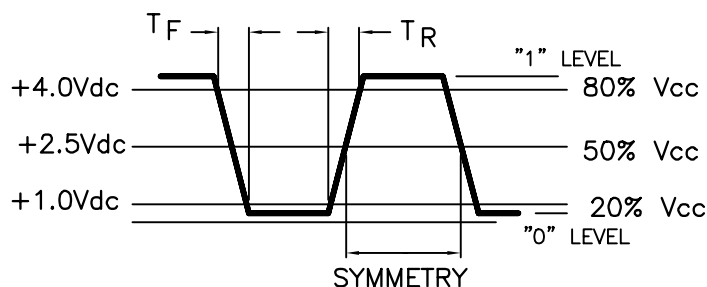
SPECIFICATIONS			VKA51A2	VKA52A2	VKA53A2	VKA62A2	VKA63A2
Frequency Range			1.0MHz to 52MHz				
Frequency Stability (See note 1)			±25ppm	±50ppm	±100ppm	±50ppm	±100ppm
Temperature Range			0°C to +70°C			−40°C to +85°C	
Output	Waveform		HCMOS/TTL Compatible Squarewave				
	Load		10NTTL/15pF				
	Voltage	Voh	4.5V Minimum				
		Vol	0.5V Maximum				
	Current	Ioh	−4.0mA				
		Iol	16.0mA				
	Duty Cycle		45/55 Maximum @ 2.5V				
	Rise/Fall Time		5nS Maximum				
	Jitter		1.0ps RMS Maximum over 12kHz to 20MHz bandwidth 5.0ps RMS Maximum over 10Hz to 20MHz bandwidth				
Tri-State Input	Output E/D Time		100nS Typical				
	Enable	(Vih)	2.7V Minimum				
	Disable	(Vil)	0.3V Maximum				
	Oscillator output is enabled with no connection on pin 2						
Frequency Control Input							
Pullability		±100ppm Minimum					
Control Voltage (Vc)		0.5Vdc to 4.5Vdc					
Slope		Positive					
Monotonic Linearity		< ±10%					
Input Impedance		50K ohms Nominal					
Modulation Bandwidth		10KHz Minimum					
Supply Voltage			+5Vdc ±5%				
Supply Current			1.0 to 18 MHz, 20 mA Maximum 18 to 36 MHz, 30 mA Maximum 36 to 52 MHz, 40 mA Maximum				
Package			Hermetically sealed, leadless ceramic package				

NOTE 1- Inclusive of calibration tolerance at 25°C, operating temperature range, supply voltage change, load change, and aging, with Vc= 2.5Vdc.

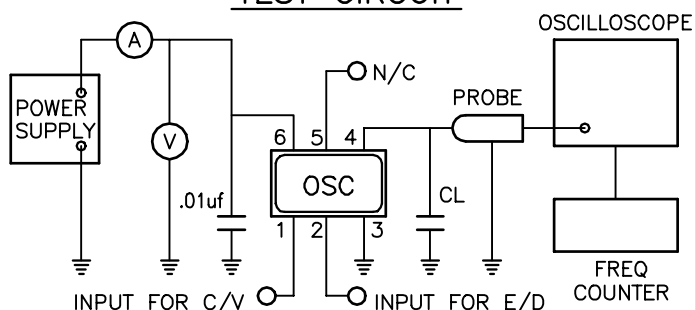
NOTE 2- A bypass capacitor of .01uF must be used between Vdd and Gnd.



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

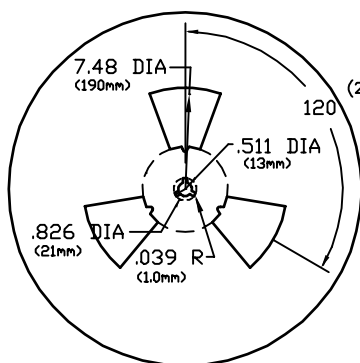
GENERAL CONDITIONS:

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

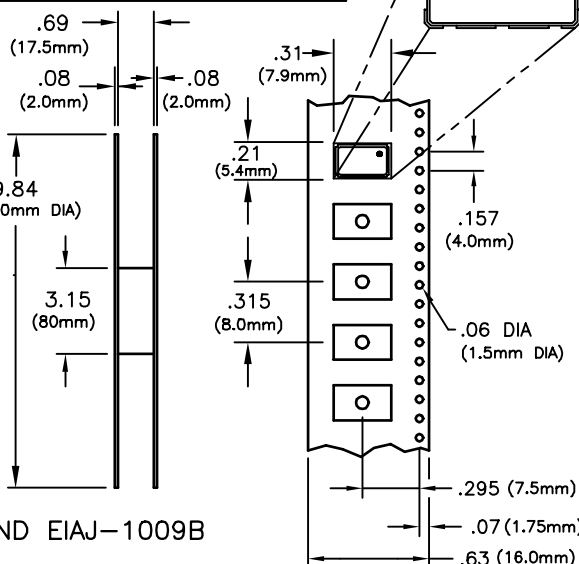
TYPICAL OPERATION DATA (Vapor phase reflow)

20 to 100 sec up to 215°C, 50 sec at 215°C then
down to room temperature per 1 to 5°C/sec

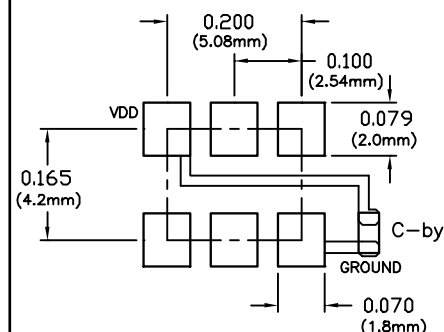
TAPING AND REEL DIMENSIONS



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



SUGGESTED PAD LAYOUT



Bypass capacitor, C-by, should be ceramic capacitor ≥ .01uf.

BULLETIN #: VX259

REV: 06

Specifications subject to change without notice.

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PAGE 2 OF 2

DATE: 9/17/01

ISSUED BY:

Dimensional ±.02" (±0.5mm)
Tolerance: ±.008" (±0.2mm)