

Surface Mount Voltage Controlled Oscillator

JTOS-1025+ JTOS-1025

Linear Tuning 685 to 1025 MHz

Features

- wide frequency range, 685 to 1025 MHz
- linear tuning characteristics
- excellent harmonic suppression, -28 dBc typ.
- low phase noise, -134 dBc/Hz at 1 MHz offset, typ.
- aqueous washable

Applications

- cellular
- instrumentation
- catv



CASE STYLE: BK377
PRICE: \$18.95 ea. QTY (5-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

FREQUENCY (MHz)		POWER OUTPUT (dBm)	TUNING VOLTAGE (V)		PHASE NOISE (dBc/Hz)				PULLING pk-pk @ 12 dBz (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	POWER SUPPLY	
Min.	Max.	Typ.	Min.	Max.	SSB at offset frequencies: Typ.				Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Voltage (V)	Current (mA) Max.
					1 kHz	10 kHz	100 kHz	1 MHz								
685	1025	+8.6	1	16	-70	-94	-114	-134	5.0	0.6	21-36	-28	-20	0.1	12	22

Pin Connections

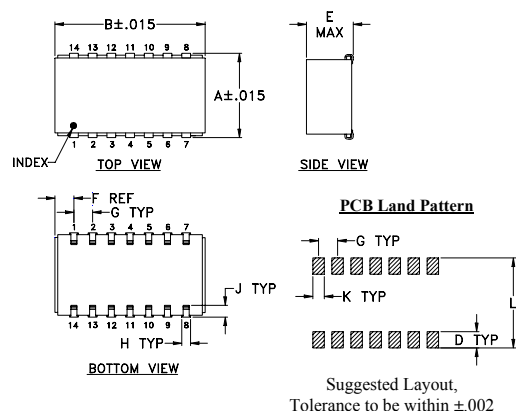
RF OUT	13
VCC	2
V-TUNE	5
GROUND	1,3,4,6,7,8,9,10,11,12,14

Maximum Ratings

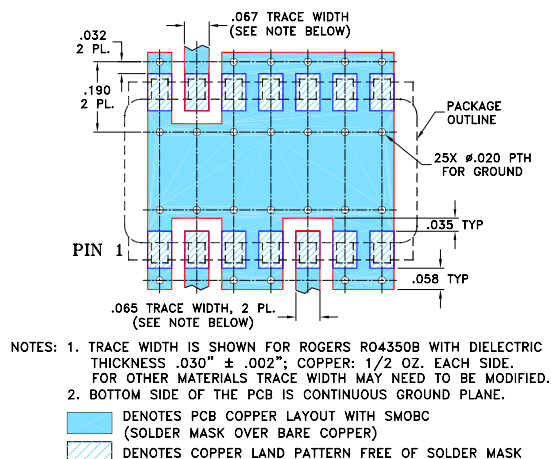
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+16V
Absolute Max. Tuning Voltage (Vtune)	+18V

all specifications: 50 ohm system
Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



Demo Board MCL PIN: TB-04 Suggested PCB Layout (PL-005)



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	wt
.505	.800	--	.100	.250	.100	.100	.047	.065	.065	.525	grams
12.83	20.32	--	2.54	6.35	2.54	2.54	1.19	1.65	1.65	13.34	3.0



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

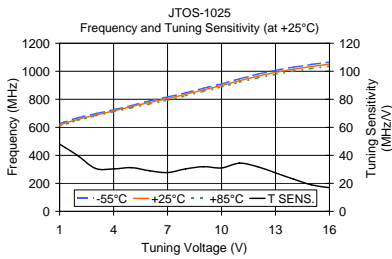
For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

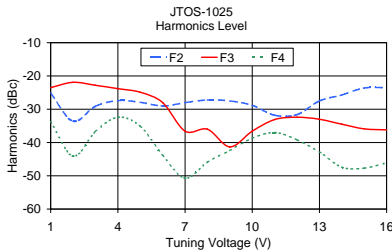
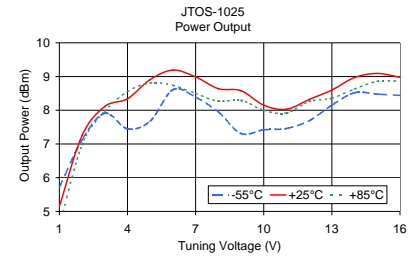
REV. B
M102713
JTOS-1025
MM/TD/CP
091223
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Performance Data & Curves

JTOS-1025+ JTOS-1025



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
1.00	48.00	626.90	616.50	609.08	5.72	5.15	4.56
2.00	39.90	667.15	656.40	649.63	7.12	7.25	6.98
3.00	30.60	697.26	686.95	681.65	7.91	8.11	7.97
4.00	30.30	725.92	717.23	711.85	7.45	8.34	8.55
5.00	31.20	755.70	748.42	739.97	7.68	8.91	8.81
6.00	29.00	788.73	777.42	766.42	8.61	9.19	8.74
7.00	27.70	816.86	805.13	793.90	8.39	8.99	8.50
8.00	30.30	846.70	835.47	824.70	7.95	8.64	8.27
9.00	31.90	878.96	867.33	856.78	7.31	8.58	8.30
10.00	31.00	910.30	898.35	888.22	7.42	8.15	8.00
11.00	34.40	946.17	932.78	922.00	7.46	8.03	7.92
12.00	31.90	979.23	964.68	952.73	7.69	8.32	8.26
13.00	27.50	1007.05	992.13	978.85	8.15	8.60	8.36
14.00	23.00	1029.60	1015.10	1001.43	8.52	8.97	8.63
15.00	18.90	1048.83	1034.03	1020.18	8.48	9.09	8.86
16.00	16.90	1065.93	1050.93	1036.63	8.44	8.98	8.87



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.00	-25.20	-23.50	-33.80	0.51
2.00	-33.60	-21.90	-44.10	-0.07
3.00	-29.10	-22.80	-36.70	0.08
4.00	-27.40	-23.80	-32.40	0.60
5.00	-27.90	-24.90	-35.10	-0.38
6.00	-29.00	-28.00	-43.80	-0.42
7.00	-28.00	-36.60	-50.70	-0.27
8.00	-27.20	-36.00	-45.90	0.38
9.00	-27.50	-41.30	-42.40	0.07
10.00	-28.80	-36.60	-38.70	1.33
11.00	-31.80	-33.10	-37.00	0.92
12.00	-31.60	-32.40	-39.20	-0.05
13.00	-27.50	-33.00	-42.80	-0.90
14.00	-25.70	-34.50	-47.40	-1.08
15.00	-23.60	-35.90	-47.70	-1.22
16.00	-23.50	-36.20	-46.10	-1.32

