(VC)TCXO
SBTO31

HCMOS

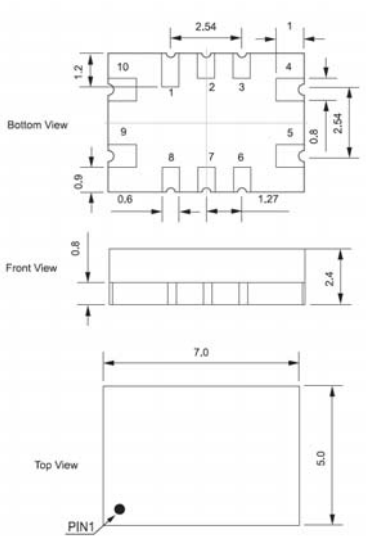
SMD PACKAGE

PICTURE AREA

APPLICATIONS

- ►Ultra stabile frequency
- ►Reapter
- ►Wi-Bro / 3G(CDMA, W-CDMA)
- ►GPRS / GSM

OUTLINE DIMENSIONS



Pin no.	Function
#1 #3 #6 #7	N/C
#4	GND
#5	Frequency output
#8	N/C
#9	Power supply output
#10	Voltage control (N/C)

ELECTRICAL SPECIFICATIONS

Frequency range	10.000MHz~40.000MHz
Frequency stability	See below
	Inclusive of operating temperature range. Units:PPM max.
Operating temperature range	See below
Storage temperature range	–55 °C ~ 105 °C
Input voltage	+3.3Vdc ±0.15V to +5.0Vdc ±0.5V
Input current	3mA ~15mA .
Output wave form	HCMOS / TTL / LVTTL
Load	15pF
Symmetry	45/55% or 55/45% Typical
Output high voltage (VOH)	+2.7V min.
Output low voltage (VOL)	+0.4V max.
Rising time (Tr)	7nS max. (at 10% to 90% Vdc)
Input voltage stability	±0.2ppm max. (at +3.3Vdc ±0.15V)
Input load stability	0.2ppm max. (at 15pF ±2pF)
Aging (at 25 °C)	±0.5ppm max. / year
Polarity & Linearity	Positive slope / 10% max. VC-TCXO
Pulling range	±5ppm~±8ppm @+1.65V VC-TCXO

Phase Nose(Typical @ 10.000MHz)

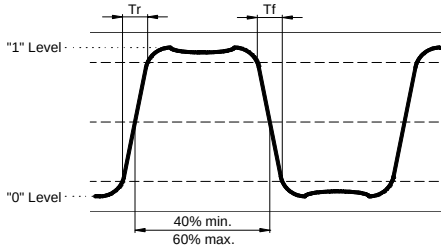
.10Hz -90dBc/Hz	.10KHz -142dBc/Hz
.100Hz -115dBc/Hz	.100KHz -145dBc/Hz
.1KHz -135dBc/Hz	

PART NUMBERING GUIDE

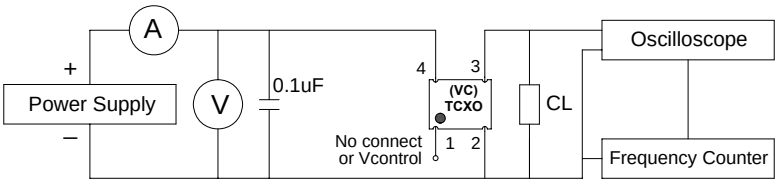
Temperature °C	Stability	Day-aging	Year-ging	Stability vs Voltage	Stability vs Load	Code
0~70	0.05PPM	0.02PPM	1PPM	0.02PPM	0.02PPM	A
0~70	0.1PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	**B**
0~70	0.28PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	C
-20~70	0.05PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	D
-20~70	0.1PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	E
-20~70	0.28PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	**F**
-40~85	0.05PPM	0.02PPM	0.5PPM	0.05PPM	0.05PPM	G
-40~85	0.28PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	**H**
-40~85	0.5PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	I
-40~85	0.5PPM	0.02PPM	1PPM	0.05PPM	0.05PPM	J
-55~85	0.5PPM	0.01PPM	0.5PPM	0.1PPM	0.1PPM	K
-55~85	1PPM	0.01PPM	0.5PPM	0.1PPM	0.1PPM	L
-55~85	2PPM	0.02PPM	1PPM	0.1PPM	0.1PPM	M

Specifications subjects to change without notice & If you need other specifications, Contact our factory.

WAVE FORM



TEST CIRCUIT



NOTE : CL = INCLUDES ALL STRAY LOADING CAPACITANCE

SBtron
www.sbtron.co.kr

#301-4, Samju Building, 954, Docksan-dong, Kuemchun-Gu, Seoul, Korea
Tel : +82 2 858-3947 / +82 2 851-7921 • Fax : +82 2 856-8349
Domestic : sales@sbtron.co.kr • International : overseas@sbtron.co.kr • Engineering : eng@sbtron.co.kr