FEATURES

PETERMANN TECHNIK
Time & Frequency Components

- HIGH RELIABILITY FOR LOW COST
- AVAILABLE AS TCXO AND VCTCXO
- TEMPERATURE STABILITY OF +-1 PPM AVAILABLE
- EXCELLENT PHASE NOISE PERFORMANCE
- LOW POWER CONSUMPTION
- EXTENDED TEMPERATURE RANGE TO -40/+85°C AVAILABLE

SERIES			M4319
PACKAGE			SMD-PACKAGE 21.3 x 11.7 x 4.7 mm
FREQUENCY RANGE		HCMOS / TTL	2.0 ~ 51.84 MHz
		CLIPPED SINE WAVE	10.0 ~ 35.0 MHz
FREQUENCY STABILITY		VS. TEMPERATURE	+-1 ~ +-5 ppm
		VS. SUPPLY VOLTAGE	+-0.5 ppm max. / 3.3VDC +-5%
		VS. LOAD	+-0.2 ppm max. / 10 pF ~ 20 pF
		VS. AGING	+-1 ppm max. per year
OPERATING TEMPERATURE RANGE			-0/+50°C ~ -40/+85°C
STORAGE TEMPERATURE RANGE			-40/+85°C
INPUT		VOLTAGE	+3.3 VDC +-5%
		CURRENT	20 mA max. for HCMOS / TTL
			2 mA max. for CLIPPED SINE WAVE
OUTPUT	SYMMETRY	STANDARD	40/60% for HCMOS / TTL
		OPTION	45/55% for HCMOS / TTL
	SIGNALS		HCMOS / TTL
			CLIPPED SINE WAVE
	RISE AND FALL TIME FOR HCMOS		10 ns max. (10% VDD TO 90% VDD)
	RISE AND FALL TIME FOR TTL		10 ns max. (0.4 TO 2.4 VOLT)
	"0" LEVEL	HCMOS	10% VDD max.
	"1" LEVEL		90% VDD min.
	"0" LEVEL	TTL	0.4 VDC max.
	"1" LEVEL		2.4 VDC min.
	CLIPPED SINE WAVE		0.7 V peak to peak min.
	LOAD	HCMOS	15 pF
		TTL	2 TTL
		CLIPPED SINE WAVE	10 kΩ / 10 pF
FREQUENCY ADJUSTMENT		STANDARD	+-3 ppm min. per internal trimmer
		OPTION	+-5 ppm min. by external control voltage
EXTERNAL CONTROL VOLTAGE			1.65 VDC +-1.35 VDC
PHASE NOISE (typical)		10 Hz offset from carrier	-80 dBc/Hz
		100 Hz offset from carrier	-105 dBc/Hz
		1 kHz offset from carrier	-140 dBc/Hz
		10 kHz offset from carrier	-150 dBc/Hz
		100 kHz offset from carrier	-155 dBc/Hz
PIN CONNECTION		PIN 1	NOT CONNECT OR CONTROL VOLTAGE
		PIN 7	CASE GROUND
		PIN 8	OUTPUT
		PIN 14	SUPPLY VOLTAGE
OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION			

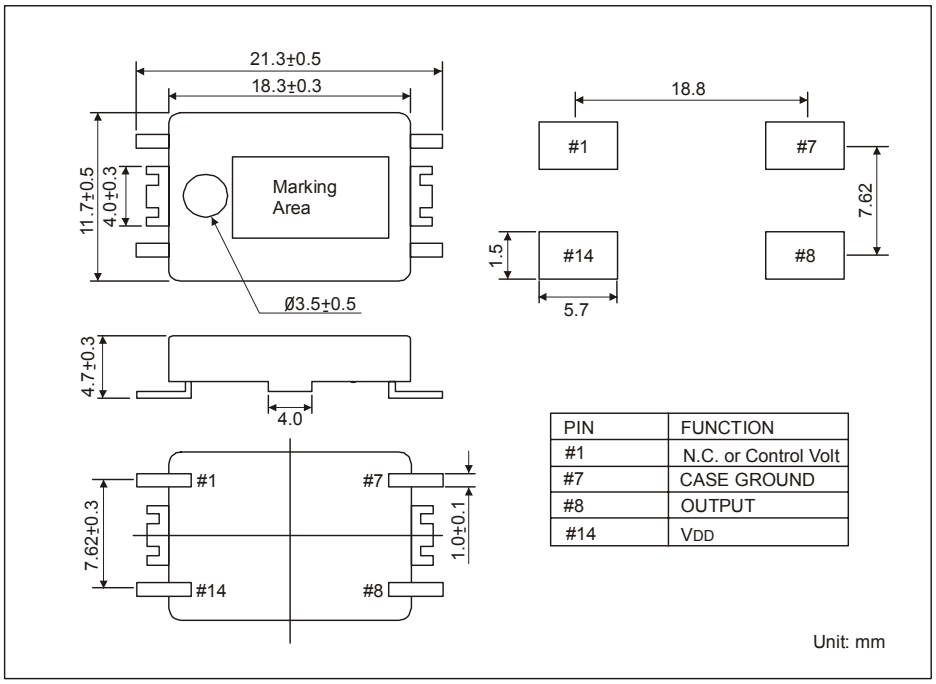
PETERMANN-TECHNIK | Amselweg 8 | D-86916 Kaufering
Fon: 00 49 (0) 81 91 / 30 53 95 | Fax: 00 49 (0) 81 91 / 30 53 97
http://www.petermann-technik.de | info@petermann-technik.de

PART NUMBERING GUIDE

EXAMPLE	M4319-S-J-10-S-V-27.000MHz

SERIES	M4319
OUTPUT SIGNAL	S = CLIPPED SINE WAVE
	T = TTL
	H = HCMOS
TEMPERATURE RANGE	J = 0/+50°C
	N = -10/+60°C
	X = 0/+70°C
	M = -20/+70°C
	K = -30/+75°C
	W = -40/+85°C
STABILITY VS. TEMPERATURE	10 = +-1.0 ppm
	15 = +-1.5 ppm
	20 = +-2.0 ppm
	25 = +-2.5 ppm
	50 = +-5.0 ppm
	X = OTHER VALUE - PLEASE INDICATE YOUR REQUIRED VALUE
SYMMETRY FOR HCMOS / TTL	BLANK = 40/60%
	S = 45/55%
VCXO OPTION	Blank = TCXO
	V = VCTCXO (external voltage control 1.65 +-1.35 VDC for +-5 ppm min.)
FREQUENCY	FREQUENCY IN MHz
TAPE AND REEL PACKAGE	-T

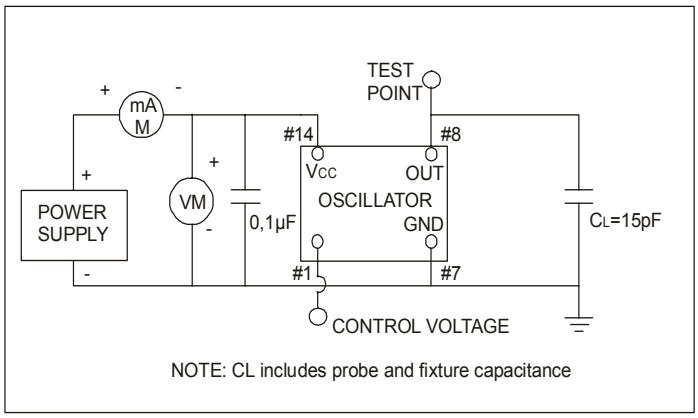
OUTLINE DRAWING M4319



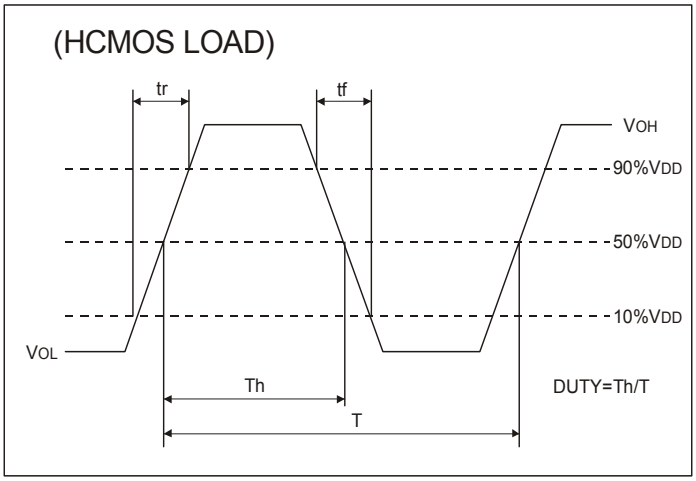
PIN	FUNCTION
#1	N.C. or Control Volt
#7	CASE GROUND
#8	OUTPUT
#14	VDD

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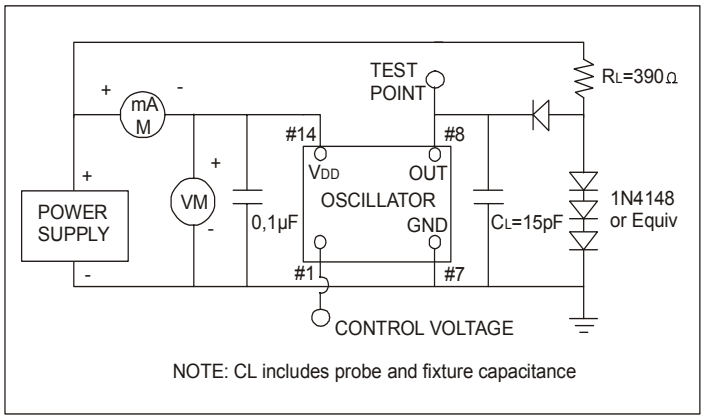
TEST CIRCUIT FOR HCMOS



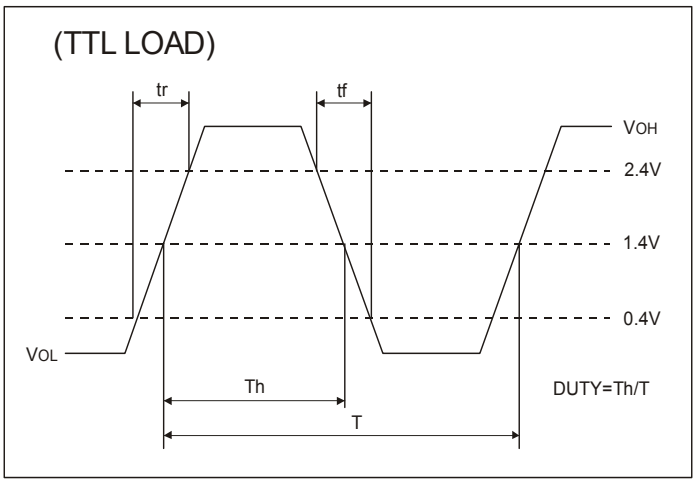
NOTE: CL includes probe and fixture capacitance



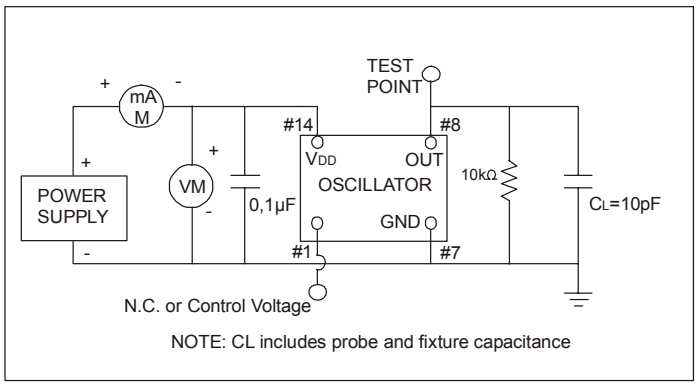
TEST CIRCUIT FOR TTL



NOTE: CL includes probe and fixture capacitance



TEST CIRCUIT FOR CLIPPED SINE WAVE



NOTE: CL includes probe and fixture capacitance

