

ULTRA MINIATURE SPREAD SPECTRUM SMD OSCILLATOR (5.0 x 3.2 x 1.3mm)

FEATURES:

- LOW EMI / EMC
- CMOS OUTPUT
- LOW VOLTAGE

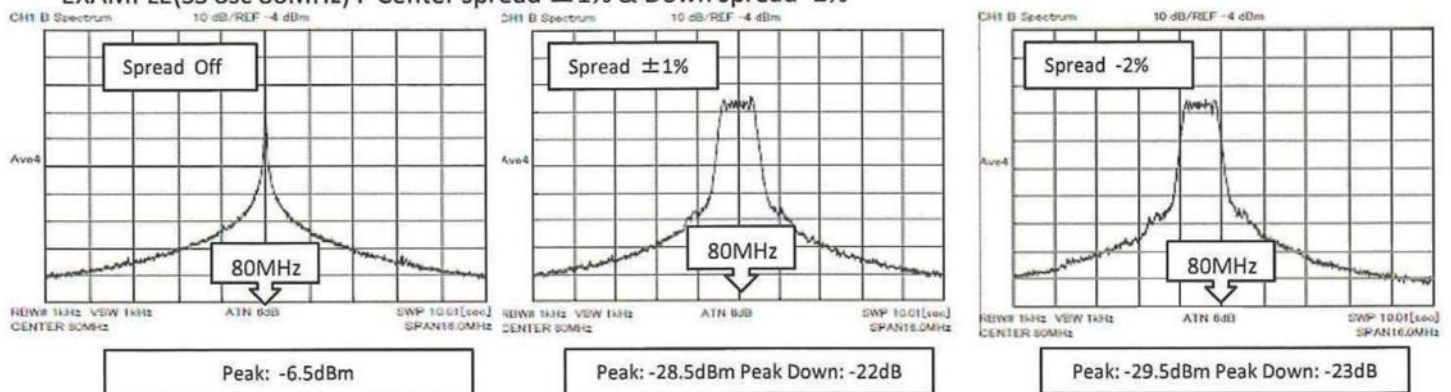


■ SPECIFICATION

PARAMETER		MIN.	TYP.	MAX.	UNIT	NOTE
FREQUENCY RANGE		1.0000		166.0000	MHz	(V _{DD} = +2.5V)
		1.0000		200.000	MHz	(V _{DD} = +3.3V)
FREQUENCY STABILITY		±25		±100	ppm	
OPERATING TEMPERATURE RANGE		-45		85	°C	See P/N guide for other options
STORAGE TEMPERATURE RANGE		-55		125	°C	
SUPPLY VOLTAGE ± 10%		2.5		3.3	V _{DC}	
SUPPLY CURRENT	1MHz ≤ f < 50MHz			20	mA	
	50MHz ≤ f < 100MHz			30	mA	
	100MHz ≤ f < 150MHz			35	mA	
	150MHz ≤ f ≤ 200MHz			40	mA	
OUTPUT	LOGIC FAMILY	CMOS				
	LOAD			15	pF	
	LEVEL LOGIC '1' (V _{OH})	0.9 x V _{DD}			V	
	LEVEL LOGIC '0' (V _{OL})			0.1 x V _{DD}	V	
	SYMMETRY(DUTY CYCLE)	40	50	60	%	@ 1/2 V _{DD} level
	RISE AND FALL TIME (Tr/Tf)			10	nS	
	START-UP TIME			10	mS	
STAND-BY VOLTAGE	ENABLE (V _{IH})	0.7 x V _{DD}			V	
	DISABLE (V _{IL})			0.3 x V _{DD}	V	
STAND-BY CURRENT (Pin#1-V _{IL})				10	μA	
ENABLE DELAY TIME				10	nS	
DISABLE DELAY TIME				10	nS	
AGING			±3	±5	ppm/year	@ +25°C ±3°C
PHASE JITTER RMS				100	pS	@ 12kHz ~ 20MHz
MODULATION RATIO	Center spread: ±0.125% ~ ±2% (0.125 step) Down spread: -0.25% ~ -0.4% (0.25 step)					

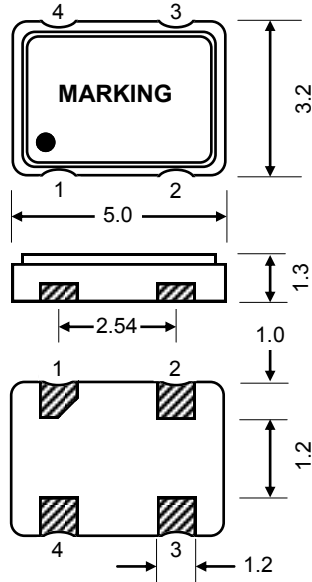
■ MODULATION RATIO

EXAMPLE(SS osc 80MHz) : Center spread ±1% & Down spread -2%



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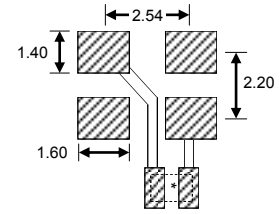
PACKAGE DIMENSIONS



Unit:mm

Pin Configuration	
1	N.C. or En/Dis
2	GND
3	Output
4	V _{DD}

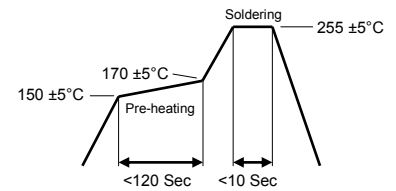
SOLDER PATTERN



Unit :mm

*0.01μF to 0.1μF bypass capacitor recommended

REFLOW PROFILE



Note: Consult factory for detail

PART NUMBERING GUIDE

