

2.5 x 2.0mm SMD TRI-STATE TIGHT STABILITY PRECISION OSCILLATORS SEAM SEALED CERAMIC PACKAGE

Pb-free & RoHS compliant

SHP1R · SHN1R · SHS1R

FREQUENCY STABILITY

MODEL	FREQUENCY STABILITY
SH5P1R · SH5N1R · SH5S1R	± 15PPM/ -40 ~ +85
SH6P1R · SH6N1R · SH6S1R	± 10PPM/ -40 ~ +85

OPERATING CONDITIONS

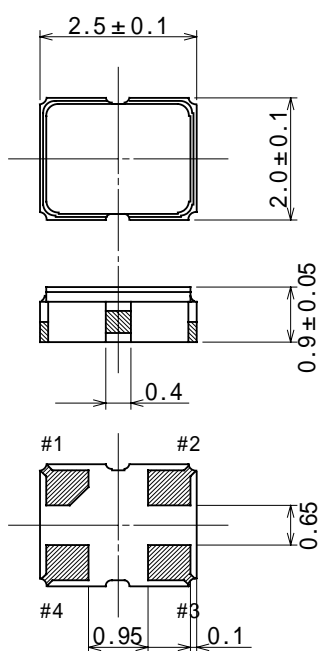
Operating Temperature	-40 ~ +85	
Storage Temperature	-40 ~ +85	
Supply Voltage (VDD)	SHP1R	+3.3V ± 10%
	SHN1R	+3.0V ± 10%
	SHS1R	+2.5V ± 10%

ELECTRICAL CHARACTERISTICS (Ta=25 °C, VDD= 3.3V, 3.0V, & 2.5V, CL=15pF)

PARAMETERS	CONDITIONS	SPECIFICATIONS		
		SHP1R	SHN1R	SHS1R
Input Current (IDD)		7mA Max.		
Frequency Range (MHz)	All Condition (Note)	4.000 ~ 54.000MHz		
Frequency Stability		± 10PPM, ± 15PPM		
Driving Ability	CMOS	15pF Max.		
Output Voltage (VOL)	"0" Level	10% VDD Max.		
	(VOH)	"1" Level	90% VDD Min.	
Rise Time (TR)	10% to 90% VDD	5ns Max .		
Fall Time (TF)	90% to 10% VDD	5ns Max .		
Symmetry	@ 50% VDD	45/55%		
Stand-by current	at 0V at Pin#1	10u Max.		
Phase Noise	at 10KHz offset	-145dBc/Hz Typ.		

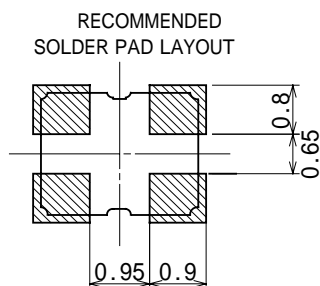
Note: Frequency stability includes initial tolerance, temperature characteristics, supply voltage & load stability, reflow freq. shift, aging(1year @25 °C).

DIMENSIONS (mm)



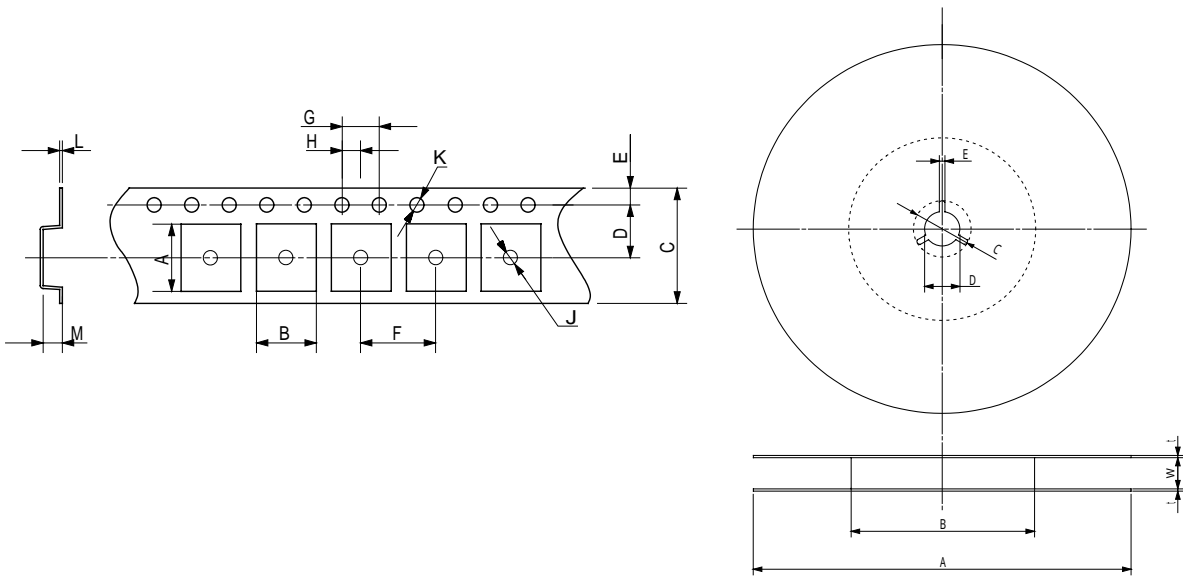
ENABLE/DISABLE FUNCTION	
CONTROL (Pin #1)	OUTPUT (Pin #3)
Open	Active
"1" (VIH 70%VDD)	Active
"0" (VIL 30%VDD)	High Z

Terminal	Connection
#1	E/D
#2	GND
#3	OUTPUT
#4	VDD



TAPE AND REEL SPECIFICATIONS

SHP1R · SHN1R · SHS1R



TAPE:

UNIT:mm

A	B	C	D	E	F	G	H	J	K	L	M
2.7	2.25	8.0	3.5	1.75	4.0	4.0	2.0	1.1	1.55	0.25	1.15

REEL:

UNIT:mm

A	B	C	D	E	W	t
180	60	21	13	2.0	9	2.5

QTY/REEL
1,000PCS