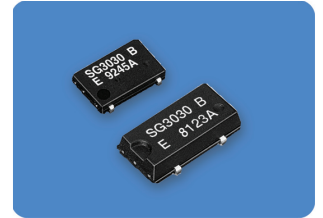




32.768KHZ SMD CRYSTAL OSCILLATOR

FEATURES

- No adjustment required with 32.768kHz crystal unit built-in
- Use of CMOS IC enables reduction of current consumption
- VIO controls swing amplitude(SG-3030/SG-3040)

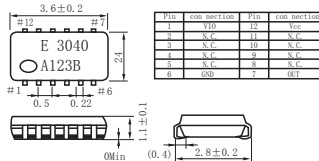


SPECIFICATIONS

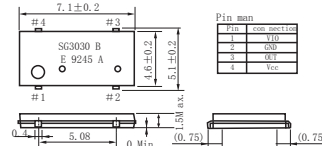
ITEM Type	SYMBOL	DESCRIPTION		
		SG-3030LC/JF/JC	SG-3040LC/JC	SG-3030JC/3040JC/3032JC
Frequency range	fo	32.768KHz		
Supply voltage	Vcc	1.5V to 5.5V	0.9V to 3.6V	1.8V to 3.6V
Interface power supply voltage	Vio	1.5V to 5.5V	0.9V to 3.6V	
Storage temperature range	T-stg	-55°C to +125°C		
Operating temperature range	T-use	-40°C to +85°C		-20°C to +70°C
Frequency tolerance	F-tol(osc)	5±23ppm		
Frequency Stability Over Operating Temp Characteristics	Fo-Tc	+10ppm/-120ppm		
Frequency / voltage coefficient	Fo-Vcc	±2ppm/V Max	±5ppm/V Max	±2ppm/V Max
Current consumption	Icc	2uA Max	3.1uA Max	5uA Max
Symmetry	SYM	45% to 55%		40% to 60%
Output Voltage High Level	Voh	Vio-0.4V Min		Vcc-0.4V Min
Output Voltage Low Level	Vol	0.4V Max		
Output load condition(CMOS)	L-CMOS	15pF		
Rise/Fall Time	Tr/Tf	200ns Max	100ns Max	
Start Up Time	Tosc	1ms Max	3ms Max	
Frequency aging	F-aging	±5ppm/year Max		

OUTLINE DIMENSIONS (mm)

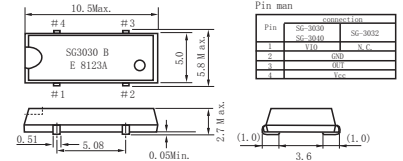
●SG-3030LC/3040LC



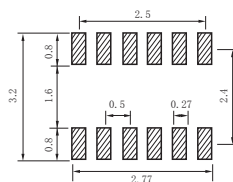
●SG-3030JF



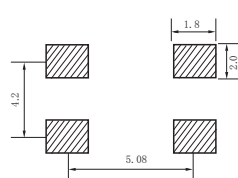
●SG-3030JC/3040JC/3032JC



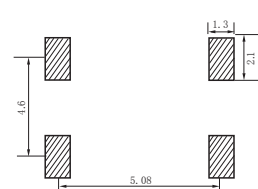
●SG-3030LC/3040LC



●SG-3030JF



●SG-3030JC/3040JC/3032JC



Note: If not use Vio-function, connect #1 to Vcc

PART NUMBER

TIM-	SG	3030LC	/	32.768	/	±50	/	-40°C~+85°C	/	3.3
Type		3030LC/JF/JC		Frequency (KHz)		Frequency stability (ppm)		operating temperature range		Supply voltage(v)
		3040LC/JC		32.768:32.768KHz		±50: ±50ppm				3.3:3.3V