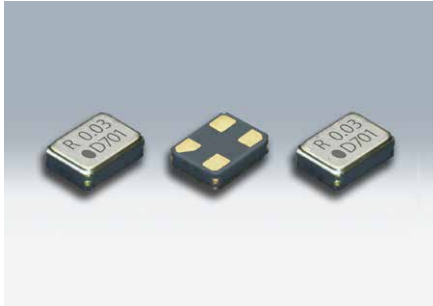


SMD Crystal Oscillators

DSO1612AR (kHz)



Actual size □

■ Features

- 1612 size, 0.5mm height, ultra miniature and lightweight
- Output Frequency : 32.768kHz
- Supply Voltage : 1.8V/2.5V/2.8V/3.0V/3.3V
- Low current consumption: 18μA typ
- Stable frequency variation realized by adopting an At cut resonator
- Capable of operating over a wide temperature range, from -40 to +125°C
- CMOS Level Output
- 3-state function

■ Applications

- short-range wireless modules, PC, car navigation systems, car audio, multimedia devices, industrial measuring equipment, consumer product



[Function Code]

DSO1612AR

Function Code	Supply Voltage	Frequency Tolerance
A	3.3V	±100×10 ⁻⁶
M	3.0V	±80×10 ⁻⁶
B	2.8V	±50×10 ⁻⁶
C	2.5V	±30×10 ⁻⁶
D	1.8V	±25×10 ⁻⁶
E	1.8V	±20×10 ⁻⁶

When requesting the product, please select the model and function code of your request.

■ Standard Specification

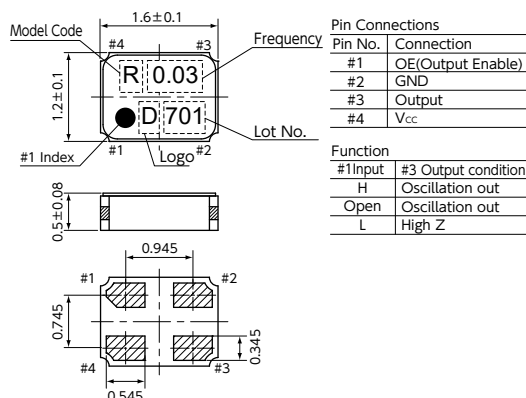
Item	Function Code		Output Frequency (kHz)	Legend	Spec.			Unit	Condition	
	Supply Voltage	Frequency tolerance			min.	typ.	max.			
Supply Voltage	A	*	*	V _{cc}	+3.0	+3.3	+3.6	V		
	M				+2.7	+3.0	+3.3			
	B				+2.6	+2.8	+3.0			
	C				+2.25	+2.5	+2.75			
	D				+1.6	+1.8	+2.0			
Frequency Tolerance (includes frequency tolerance at room temperature)	*	Y	*	f _{tol}	-	-	±100	×10 ⁻⁶	-40 to +125°C	-10 to +70°C (Standard Operating Temperature Range)
	*	Z			-	-	±80		-40 to +110°C	
	*	A			-	-	±100		-40 to +85°C	
	*	B			-	-	±50		-20 to +70°C	
	*	C			-	-	±30			
	*	D			-	-	±25			
Current Consumption	*	*	*	I _{cc}	-	18	32	μA	No Load	
Stand-by Current (#1 pin "L" Level)	*	*	*	I _{std}	-	-	5	μA		
Load Condition	*	*	*	L _{CMOS}	-	-	15	pF		
Symmetry	*	*	*	SYM	45	50	55	%	50% V _{cc} Level	
0 Level Output Voltage	*	*	*	V _{OL}	-	-	V _{cc} ×0.1	V		
1 Level Output Voltage	*	*	*	V _{OH}	V _{cc} ×0.9	-	-			
Rise and Fall Time	*	*	*	t _r , t _f	-	-	50	ns	10 to 90% V _{cc} Level	
OE Pin 0 Level Input Voltage	*	*	*	V _{IL}	-	-	V _{cc} ×0.3	V		
OE Pin 1 Level Input Voltage	*	*	*	V _{IH}	V _{cc} ×0.7	-	-			
Output Disable Time	*	*	*	t _{PLZ}	-	-	1	μs		
Output Enable Time	*	*	*	t _{PZL}	-	-	10	ms		
Packing Unit (1)	3000pcs./reel (φ180)									

(1) Moisture prevention packing is unnecessary.
Moisture Sensitivity Level : Level1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications.

[mm]

■ Dimensions



■ Recommended Land Pattern

