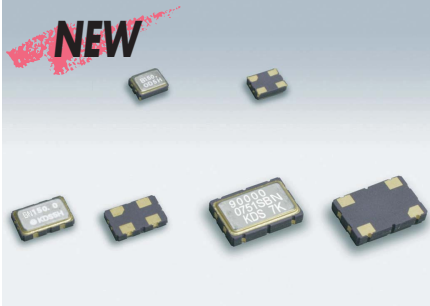


SMD Crystal Oscillators

DSO321SBM/SBN, DSO531SBM/SBN, DSO751SBM/SBN



Features

- Low current consumption (5V type)
- 3-state function
- $f_{tol} \leq \pm 30 \times 10^{-6}$ product is available for video applications. 28.636MHz, 28.375MHz and 14.318MHz 27.000MHz frequencies are available.
- Reduced output waveform harmonics (SBN series)

Applications

- PC, peripherals, and visual applications



Product

DSO751SBM/SBN Y B

Type

Function Code
(Frequency tolerance)

Function Code (Supply Voltage)

[Type]

DSO751SBM/SBN	7349 size
DSO531SBM/SBN	5032 size
DSO321SBM/SBN	3225 size

[Function Code]

Frequency tolerance	Supply Voltage	4.5-5.5V 5.0V typ.
$\pm 100 \times 10^{-6}$		Y A
$\pm 50 \times 10^{-6}$		Y B
$\pm 30 \times 10^{-6}$		Y C

Standard Specification

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

Item	Function Code		Available Frequency Range (MHz)	Legend	Spec.			Unit	Condition	
	Supply Voltage	Frequency tolerance			min.	typ.	max.			
Supply Voltage	Y	*	$0.7 \leq f_o \leq 90$	Vdd	+4.5	+5.0	+5.5	V		
Frequency Tolerance	*	A	$0.7 \leq f_o \leq 90$	f _{tol}	-100	-	+100	10 ⁻⁶	-40~+85°C	(Maximum Operating Temperature Range)
	*	B	$0.7 \leq f_o \leq 90$		-50	-	+50		-40~+85°C	
	*	C	$0.7 \leq f_o \leq 54$		-30	-	+30		-20~+70°C	
Current Consumption	Y	*	$0.7 \leq f_o < 32$	I _{dd}	-	-	4.0	mA	No Load	
			$32 \leq f_o < 54$		-	-	6.0			
			$54 \leq f_o \leq 90$		-	-	8.0			
			*		I _{std}	-	-			50
Symmetry	*	*	$f_o < 26$	SYM	45	50	55	%	at 50% Vdd	
	*	*	$f_o \geq 26$		40	50	60			
0 Level Output Voltage	*	*	*	V _{ol}	-	-	Vdd×0.1	V		
1 Level Output Voltage	*	*	*	V _{oh}	Vdd×0.9	-	-	V		
Rise and Fall Time	*	*	$0.7 \leq f_o < 50$	tr, tf	-	-	7	ns	10~90% Vdd Level L _{CMOS} 15pF	
	*	*	$50 \leq f_o < 67$		-	-	6			
	*	*	$67 \leq f_o \leq 90$		-	-	5			
Output Load	*	*	*	L _{CMOS}	-	15	30	pF		
OE Pin 0 Level Input Voltage	*	*	*	V _{il}	-	-	Vdd×0.2	V		
OE Pin 1 Level Input Voltage	*	*	*	V _{ih}	Vdd×0.8	-	-	V		
Output Disable Time	*	*	*	T _{plz}	-	-	150	ns		
Output Enable Time	*	*	*	T _{pzl}	-	-	1	ms		
Packing Unit	DSO321SBM/SBN: 2000pcs./reel (φ 180)		DSO531SBM/SBN: 1000pcs./reel (φ 180)		DSO751SBM/SBN: 1000pcs./reel (φ 254)					

Consult our sales representative for other specifications.

Dimensions[mm]

Model Code	Dimensions	Pin Connections	Function	Recommended Land Pattern
DSO321SBM/SBN	<p>Model Code: DSO321SBMB, DSO321SBNB</p> <p>Dimensions: 3.2±0.15, 2.6±0.15, 1.1±0.1, 2.1, 1.65, 0.9, 0.65</p> <p>Pin Connections: #1 OE(Output Enable), #2 GND, #3 Output, #4 Vss</p> <p>Function: #3 output condition: H Oscillation out, Open Oscillation out, L High Z</p> <p>Recommended Land Pattern (Top View): 2.1, 2.2, 1.75, 0.95, 1.2</p>	<p>Model Code: DSO531SBMB, DSO531SBNB</p> <p>Dimensions: 5.0±0.2, 3.2±0.2, 1.1±0.1, 2.54, 2.10, 1.2, 0.9, 1.4</p> <p>Pin Connections: #1 OE(Output Enable), #2 GND, #3 Output, #4 Vss</p> <p>Function: #3 output condition: H Oscillation out, Open Oscillation out, L High Z</p> <p>Recommended Land Pattern (Top View): 2.54, 2.2, 1.2, 1.4</p>	<p>Model Code: DSO751SBM, DSO751SBN</p> <p>Dimensions: 7.3±0.2, 4.9±0.2, 1.5±0.2, 5.08, 3.65, 1.4, 4.2, 1.8, 2.0</p> <p>Pin Connections: #1 OE(Output Enable), #2 GND, #3 Output, #4 Vss</p> <p>Function: #3 output condition: H Oscillation out, Open Oscillation out, L High Z</p> <p>Recommended Land Pattern (Top View): 5.08, 4.2, 1.8, 2.0</p>	