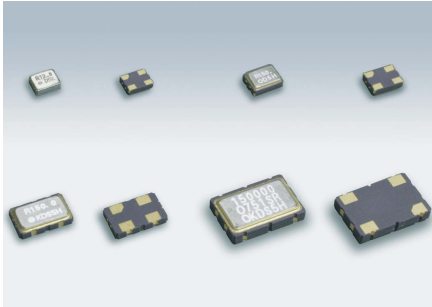


# SMD Crystal Oscillators <For Automotive>

## DSO221SR, DSO321SR, DSO531SR, DSO751SR



### Features

- 3-state function
- AEC-Q200 Compliant

### Applications

- Automotive multimedia devices

### [Type]

DSO751SR	7349 size
DSO531SR	5032 size
DSO321SR	3225 size
DSO221SR	2520 size



### [Function Code]

DSO\*\*\*SR A A

A : 3.3V  
 B : 2.8V  
 C : 2.5V  
 D : 1.8V

A, Y :  $\pm 100 \times 10^{-6}$   
 Z :  $\pm 80 \times 10^{-6}$   
 B :  $\pm 50 \times 10^{-6}$

Actual size DSO221SR DSO321SR DSO531SR DSO751SR

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

### Standard Specification

Item	Function Code		Available Frequency Range (MHz)	Legend	Spec.				Condition	
	Supply Voltage	Frequency Tolerance			min.	Typ.	max.	Unit		
Supply Voltage	A	*	$0.3 \leq f_o \leq 125$	Vdd	+3.0	+3.3	+3.6	V		
	B	*	$0.3 \leq f_o \leq 100$		+2.6	+2.8	+3.0			
	C	*	$0.3 \leq f_o \leq 100$		+2.25	+2.5	+2.75			
	D	*	$0.3 \leq f_o \leq 80$		+1.6	+1.8	+2.0			
Frequency Tolerance	*	Y	$0.3 \leq f_o \leq 100$	f_tol	—	—	$\pm 100$	$\times 10^{-6}$	-40~+125°C	-40~+85°C (Standard Operating Temperature Range)
	*	Z	$0.3 \leq f_o \leq 100$		—	—	$\pm 80$		-40~+110°C	
	*	A	$100 < f_o \leq 125$		—	—	$\pm 100$		-40~+85°C	
	*	B	$0.3 \leq f_o \leq 100$		—	—	$\pm 50$		-40~+85°C	
Current Consumption	A	*	$0.3 \leq f_o < 54$	Idd	—	—	+4.0	mA	No Load	
			$54 \leq f_o < 80$		—	—	+6.0			
			$80 \leq f_o < 125$		—	—	+8.0			
	B	*	$0.3 \leq f_o < 54$		—	—	+3.5			
			$54 \leq f_o < 80$		—	—	+5.5			
			$80 \leq f_o < 125$		—	—	+7.5			
	C	*	$0.3 \leq f_o < 54$		—	—	+3.0			
			$54 \leq f_o < 80$		—	—	+5.0			
			$80 \leq f_o < 125$		—	—	+7.0			
	D	*	$0.3 \leq f_o < 54$		—	—	+2.5			
			$54 \leq f_o < 80$		—	—	+4.5			
Stand-by current (#1 pin "L" Level)	*	*	*	I_std	—	—	+10	$\mu A$		
Symmetry	*	*	*	SYM	40	50	60	%	50%Vdd Level	
0 Level Output Voltage	*	*	*	V <sub>ol</sub>	—	—	Vddx0.1	V		
1 Level Output Voltage	*	*	*	V <sub>oh</sub>	Vddx0.9	—	—	V		
Rise and Fall Time	*	*	$0.3 \leq f_o < 54$	tr,tf	—	—	8	ns	L <sub>CMOS</sub> : 15pF 0.1~0.9% Vdd Level	
	*	*	$54 \leq f_o < 100$		—	—	4			
	*	*	$100 \leq f_o \leq 125$		—	—	3			
Output Load	*	*	*	L <sub>CMOS</sub>	—	—	15	pF		
OE Pin 0 Level Input Voltage	*	*	*	V <sub>il</sub>	—	—	Vddx0.2	V		
OE Pin 1 Level Input Voltage	*	*	*	V <sub>ih</sub>	Vddx0.8	—	—	V		
Output Disable Time	*	*	*	T <sub>plz</sub>	—	—	150	ns		
Output Enable Time	*	*	*	T <sub>pzl</sub>	—	—	5	ms		
Reliability	AEC-Q200-REV.C									
Packing Unit	DSO221SR, DSO321SR : 2000pcs./reel(180φ), DSO531SR : 1000pcs./reel(180φ), DSO751SR : 1000pcs./reel(254φ)									

### Dimensions [mm]

Consult our sales representative for other specifications.

