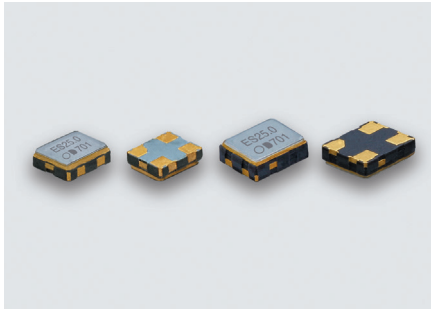


SMD Crystal Oscillators

Under Development

DE2016AS/DE2520AS



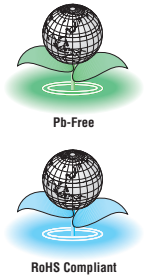
Actual size DE2016AS DE2520AS

Features

- Supply voltage : 1.8V/2.5V/3.3V
- Available frequency range: 3.75 to 125MHz
- Low profile : 0.7mm(DE2016AS), 0.8mm(DE2520AS)
- CMOS output
- Supports a wide operating temperature range with narrow tolerance from -40 to +125°C
- AEC-Q200 compliant (option: equivalent to AEC-Q100)

Applications

- Wi-Fi, sever, automotive communication



[Function Code]

DE****AS

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

E : $\pm 20 \times 10^{-6}$

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

Standard Specification

Item	Function Code		Output Frequency Range (MHz)	Legend	Spec.				Condition
	Supply Voltage	Frequency tolerance			min	typ.	max.	Unit	
Supply Voltage	A	*	3.75 ≤ f ₀ ≤ 125	V _{cc}	+3.0	+3.3	+3.6	V	
	C				+2.25	+2.5	+2.75		
	D				+1.71	+1.8	+1.89		
Frequency Tolerance (Includes frequency tolerance at room temperature)	*	E	*	f _{tol}	-20	—	+20	× 10 ⁻⁶	-40 to +125 °C
						—			-40 to +105 °C
						—			-40 to +85 °C
Current Consumption	A	*	3.75 ≤ f ₀ < 8	I _{cc}	—	—	6.5	mA	No Load
			8 ≤ f ₀ < 30		—	—	7.5		
			30 ≤ f ₀ < 60		—	—	9.5		
			60 ≤ f ₀ ≤ 125		—	—	11.5		
	C		3.75 ≤ f ₀ < 8		—	—	5.0		
			8 ≤ f ₀ < 30		—	—	6.0		
			30 ≤ f ₀ < 60		—	—	7.0		
			60 ≤ f ₀ ≤ 125		—	—	9.0		
	D		3.75 ≤ f ₀ < 8		—	—	4.5		
			8 ≤ f ₀ < 30		—	—	5.0		
			30 ≤ f ₀ < 60		—	—	5.5		
			60 ≤ f ₀ ≤ 125		—	—	7.0		
Stand-by Current (#1 pin"L"Level)	*	*	3.75 ≤ f ₀ ≤ 125	I _{std}	—	—	20.0	μ A	
Load Condition	*	*	*	L _{CMOS}	—	—	15	pF	
Symmetry	*	*	3.75 ≤ f ₀ ≤ 125	SYM	45	50	55	%	at 50% V _{cc}
0 Level Output Voltage	*	*	*	V _{OL}	—	—	0.4	V	
1 Level Output Voltage	*	*	*	V _{OH}	V _{cc} - 0.4	—	—		
Rise and Fall Time	A, C, D	*	*	tr, tf	—	—	4	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	*	*	*	tPLZ	—	—	200	ns	
Output Enable Time	*	*	*	tPZL	—	—	2	ms	
Packing unit(1)	3000pcs./reel(Φ 180)								

(1) Moisture prevention packing is unnecessary.

Moisture Sensitivity Level : Level1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications

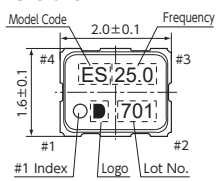
DE2016AS

[mm]

DE2520AS

[mm]

Dimensions

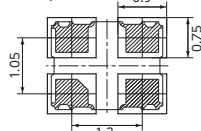


Pin No.	Connection
#1	OE(Output Enable)
#2	GND
#3	Output
#4	Vcc

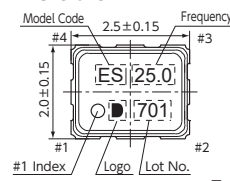
Function	#3 Output condition
H	Oscillation out
L	High Z

Recommended Land Pattern

(Top View)



Dimensions



Pin No.	Connection
#1	OE(Output Enable)
#2	GND
#3	Output
#4	Vcc

Function	#3 Output condition
H	Oscillation out
L	High Z

Recommended Land Pattern

(Top View)

