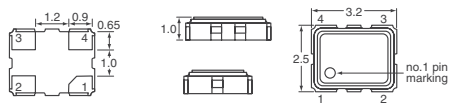
CSX325F Series Ceramic SMT Oscillators

Specifications: • **Frequency Stability:** ±100ppm (-20°C ~ 70°C) • **Operating Temperature Range:** -40°C ~ 85°C • **Storage Temperature Range:** -55°C ~ 125°C • **Current Consumption:** 5mA (<30MHz) / 7mA Max. (<54MHz) • **Duty:** 40~60% • **Output Voltage:** VOH: 0.8 Vdd Min; VOL: 0.2Vdd max. • **Output Load:** CMOS 15pF max. • **Rise and Fall Time:** 10 nsec max. • **Start-up Time:** 10 msec max. • **Aging (first year):** ±2ppm

Pin Connection	
1	Open or Vdd
2	Gnd
3	Out
4	Vdd



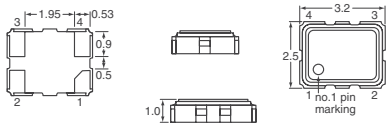
Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1	10	50	Digi-Key Part No.	Tape & Reel Pricing 2,000	Citizen Part No.
CSX325FJC — 3.3V							
12.500	300-8686-1-ND	3.40	3.18	2.05	300-8686-2-ND	1506.45/M	CSX325FJC12.500M-UT
13.500	300-8687-1-ND	3.40	3.18	2.05	300-8687-2-ND	1506.45/M	CSX325FJC13.500M-UT
20.000	300-8688-1-ND	3.40	3.18	2.05	300-8688-2-ND	1506.45/M	CSX325FJC20.000M-UT
22.000	300-8689-1-ND	3.40	3.18	2.05	300-8689-2-ND	1506.45/M	CSX325FJC22.000M-UT
24.000	300-8690-1-ND	3.40	3.18	2.05	300-8690-2-ND	1506.45/M	CSX325FJC24.000M-UT
25.000	300-8691-1-ND	3.40	3.18	2.05	300-8691-2-ND	1506.45/M	CSX325FJC25.000M-UT
27.000	300-8692-1-ND	3.40	3.18	2.05	300-8692-2-ND	1506.45/M	CSX325FJC27.000M-UT
40.000	300-8693-1-ND	3.40	3.18	2.05	300-8693-2-ND	1506.45/M	CSX325FJC40.000M-UT
44.000	300-8694-1-ND	3.40	3.18	2.05	300-8694-2-ND	1506.45/M	CSX325FJC44.000M-UT
48.000	300-8695-1-ND	3.40	3.18	2.05	300-8695-2-ND	1506.45/M	CSX325FJC48.000M-UT
CSX325FHC — 2.5V							
12.500	300-8696-1-ND	3.40	3.18	2.05	300-8696-2-ND	1506.45/M	CSX325FHC12.500M-UT
13.500	300-8697-1-ND	3.40	3.18	2.05	300-8697-2-ND	1506.45/M	CSX325FHC13.500M-UT
20.000	300-8698-1-ND	3.40	3.18	2.05	300-8698-2-ND	1506.45/M	CSX325FHC20.000M-UT
22.000	300-8699-1-ND	3.40	3.18	2.05	300-8699-2-ND	1506.45/M	CSX325FHC22.000M-UT
24.000	300-8700-1-ND	3.40	3.18	2.05	300-8700-2-ND	1506.45/M	CSX325FHC24.000M-UT
25.000	300-8701-1-ND	3.40	3.18	2.05	300-8701-2-ND	1506.45/M	CSX325FHC25.000M-UT
27.000	300-8702-1-ND	3.40	3.18	2.05	300-8702-2-ND	1506.45/M	CSX325FHC27.000M-UT
40.000	300-8703-1-ND	3.40	3.18	2.05	300-8703-2-ND	1506.45/M	CSX325FHC40.000M-UT
44.000	300-8704-1-ND	3.40	3.18	2.05	300-8704-2-ND	1506.45/M	CSX325FHC44.000M-UT
48.000	300-8705-1-ND	3.40	3.18	2.05	300-8705-2-ND	1506.45/M	CSX325FHC48.000M-UT

CSX325T Series SMD TCXO Oscillators

Specifications: • **Frequency Stability:** ±2.5ppm (-30°C ~ 75°C) • **Operating Temperature Range:** -30°C ~ 75°C • **Storage Temperature Range:** -40°C ~ 85°C • **Supply Voltage:** 2.4V ~ 3.0V • **Frequency Adjustment Range:** ±8ppm Min. • **Current Consumption:** 1.5mA (13 ~ 19.68MHz) / 2mA Max. (26MHz) • **Output Voltage:** 0.8Vp-p Min. • **Aging (first year):** ±1ppm

Pin Connection	
1	VC or Gnd
2	Gnd
3	Output
4	Vcc

Connection	Function
VC	VC-TCXO
GND	TCXO



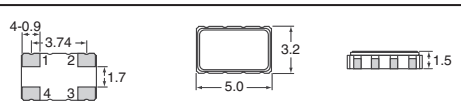
Supply Voltage	Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1	10	50	Tape & Reel Pricing* 2,000	Citizen Part No.
2.8	13.000	300-8706-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T13.000M2-UT10
	16.000	300-8708-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T16.000M2-UT10
	19.200	300-8710-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T19.200M2-UT10
	26.000	300-8712-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T26.000M2-UT10
	33.600	300-8714-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T33.600M2-UT10
	38.400	300-8716-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T38.400M2-UT10
3.0	13.000	300-8707-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T13.000M3-UT10
	16.000	300-8709-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T16.000M3-UT10
	19.200	300-8711-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T19.200M3-UT10
	26.000	300-8713-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T26.000M3-UT10
	33.600	300-8715-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T33.600M3-UT10
	38.400	300-8717-1-ND	4.54	3.36	3.00	2413.95/M	CSX325T38.400M3-UT10

* For Tape and Reel part number, change 1-ND to 2-ND.

CSX532T Series SMD TCXO Oscillators

Specifications: • **Frequency Stability:** ±2.5ppm (-30°C ~ 75°C) • **Operating Temperature Range:** -30°C ~ 75°C • **Storage Temperature Range:** -40°C ~ 85°C • **Frequency Adjustment:** ±8ppm Min./ Vcont=Vdd/2±1.0V • **Output Voltage:** 0.8Vp-p Min.

Pin Connection	
1	VC or Gnd
2	Gnd
3	Output
4	Vcc



Supply Voltage	Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1	10	50	Tape & Reel Pricing* 2,000	Citizen Part No.
2.4	13.0000	300-8720-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T13.000M1-UT10
	26.0000	300-8727-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T26.000M1-UT10
2.8	12.8000	300-8718-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T12.800M2-UT10
	13.0000	300-1100-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T13.000M2-UT10
	16.0000	300-8721-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T16.000M2-UT10
	16.3676	300-8274-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T16.3676M2-UT-10
	16.8000	300-1101-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T16.800M2-UT10
	19.2000	300-1102-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T19.200M2-UT10
	19.8000	300-8724-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T19.800M2-UT10
	20.0000	300-8725-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T20.000M2-UT10
	24.5535	300-8276-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T24.5535M2-UT-10
	26.0000	300-1103-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T26.000M2-UT10
3.0	12.8000	300-8719-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T12.800M3-UT10
	13.0000	300-1104-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T13.000M3-UT10
	16.0000	300-8722-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T16.000M3-UT10
	16.3676	300-8275-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T16.3676M3-UT-10
	16.8000	300-1105-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T16.800M3-UT10
	19.2000	300-1106-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T19.200M3-UT10
	19.6800	300-8723-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T19.680M3-UT10
	20.0000	300-8726-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T20.000M3-UT10
	24.5535	300-8277-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T24.5535M3-UT-10
	26.0000	300-1107-1-ND	3.63	2.69	2.40	1931.16/M	CSX532T26.000M3-UT10

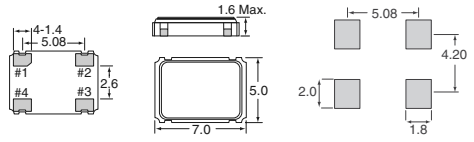
* For Tape and Reel part number, change 1-ND to 2-ND.

D

CSX-750FCC, FBC, FJC Series SMD Oscillators

SPECIFICATIONS		CSX-750FCC		CSX-750FBC	CSX-750FJC
Frequency Range (MHz):		1.000 ~ 39.999	40.000 ~ 70.000	1.000 ~ 39.999	40.000 ~ 80.000
Frequency Stability:		C: ±100ppm @ (-20°C ~ 70°C)			
Operating Temperature:		-40°C ~ 85°C			
Storage Temperature:		-55°C ~ 125°C			
Supply Voltage:		Vdd: 5.0V±0.5V		Vdd: 3.3V±0.3V	Vdd: 3.3V±0.3V
Supply Current:		25mA Max.	45mA Max.	15mA Max.	25mA Max.
Duty:	**TTL Level (1.4V):**	40% ~ 60%		—	—
	CMOS Level (VDD/2):	45% ~ 55%			
Output Voltage:	**VOH:**	0.9V Min.			
	VOL:	0.4V Max.		0.1V Max.	0.1V Max.
Output Load:	**TTL:**	10TTL Max.		—	—
	CMOS:	50pF Max.		30pF Max.	30pF Max.
Rise & Fall Time:	**CMOS:**	tr, tf: 8nsec Max.	tr, tf: 6nsec Max.	tr, tf: 8nsec Max.	tr, tf: 6nsec Max.
Start Up Time:		4msec Max.	10msec Max.	4msec Max.	10msec Max.
Input (OE) Voltage:		V IH: 2.0V Min.		V IH: 2.0V Min.	V IH: 0.7VDD Min.
		V IL: 0.8V Max.		V IL: 0.4V Max.	V IL: 0.3VDD Max.
Disable Current: FC, FB		10mA Max.	20mA Max.	5mA Max.	—
Stand-by Current: FJ		—	—	—	10µA Max.
Shock Resistance		±20ppm Max. *(75cm height drop on hardwood board 3 times.)*			

Pin Connection	
1	OE or Standby
2	Gnd
3	Out
4	Vdd



Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1	10	50	Tape & Reel Pricing* 2,000	Citizen Part No.
CSX750FBC						
1.843200	300-7230-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC1.8432M-UT
3.686400	300-7231-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC3.6864M-UT
4.000000	300-7232-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC4.000M-UT
7.372800	300-7233-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC7.3728M-UT
8.000000	300-7234-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC8.000M-UT
10.000000	300-7235-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC10.000M-UT
12.000000	300-7236-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC12.000M-UT
12.288000	300-7237-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC12.288M-UT
14.318180	300-7238-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC14.31818M-UT
14.745600	300-7239-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC14.7456M-UT
16.000000	300-7240-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC16.000M-UT
16.384000	300-7241-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC16.384M-UT
18.432000	300-7242-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC18.432M-UT
20.000000	300-7243-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC20.000M-UT
24.000000	300-7244-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC24.000M-UT
24.576000	300-7245-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC24.576M-UT
25.000000	300-7246-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC25.000M-UT
27.000000	300-7247-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC27.000M-UT
29.491200	300-7248-1-ND	2.18	2.04	1.75	813.12/M	CSX750FBC29.4912M-UT
32.000000	300-7249-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC32.000M-UT
32.768000	300-7250-1-ND	2.45	2.29	1.97	813.12/M	CSX750FBC32.768M-UT
33.333000	300-7251-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC33.333M-UT
35.328000	300-7252-1-ND	2.45	2.29	1.97	914.76/M	CSX750FBC35.328M-UT
CSX750FCC						
1.843200	300-7200-1-ND	2.45	2.29	1.97	914.76/M	CSX750FCC1.8432M-UT
3.686400	300-7201-1-ND	2.45	2.29	1.97	914.76/M	CSX750FCC3.6864M-UT
4.000000	300-7202-1-ND	2.45	2.29	1.97	914.76/M	CSX750FCC4.000M-UT
7.372800	300-7203-1-ND	2.45	2.29	1.97	914.76/M	CSX750FCC7.3728M-UT
8.000000	300-7204-1-ND	2.45	2.29	1.97	914.76/M	CSX750FCC8.000M-UT

* For Tape and Reel part number, change 1-ND to 2-ND. *(Continued)*