

Technical Data of Ceramic Resonator

Type CSA8.00MTZ

CST8.00MTW

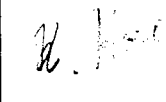
Applied to M34551M8XXXFP

TOYAMA MURATA MANUFACTURING CO., LTD.

Product Engineering Service Section I

Planning Department

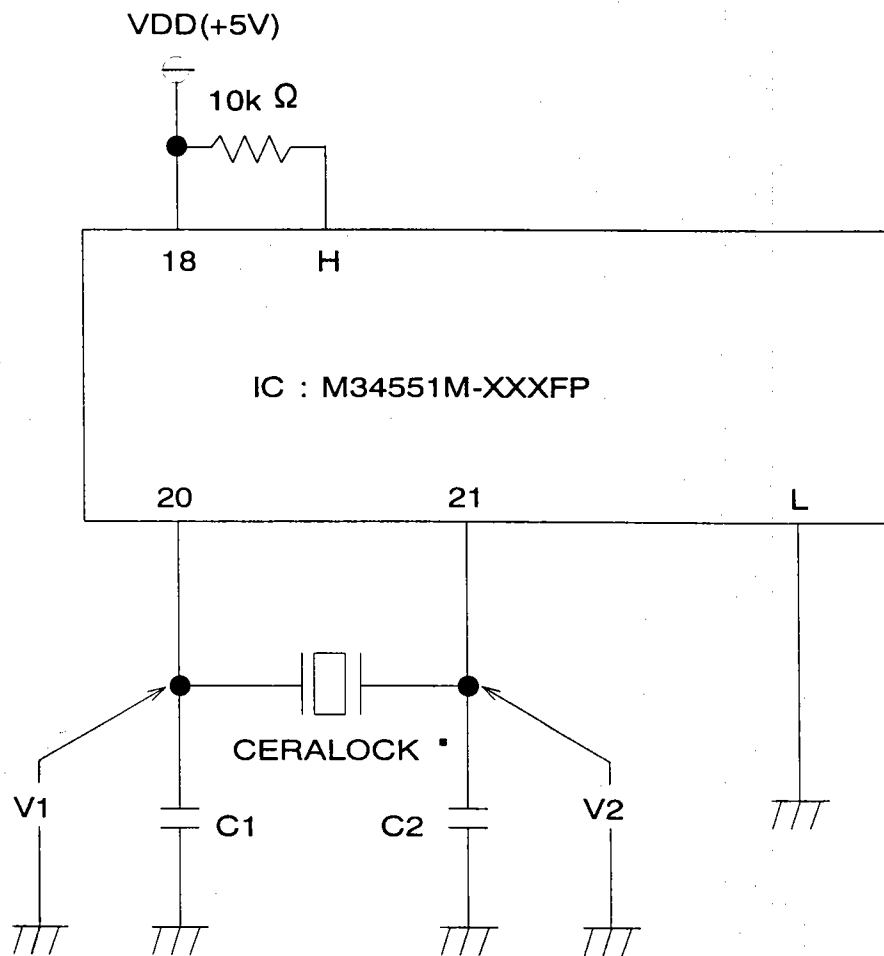
Piezoelectric Components Group

Approved by	Checked by	Checked by	Issued by	Issued Date	TCD No.
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Contents

1.	Test Circuit	1
2.	Temperature Characteristics of Oscillating Frequency, Oscillating Voltage	2
3.	Rise Time, Oscillating Frequency, Oscillating Voltage vs Vdd Characteristics	3
4.	Oscillating Frequency, Oscillating Voltage vs (C1,C2) Characteristics	4
5.	Oscillating Frequency, Oscillating Voltage, Rise Time, Oscillating Voltage vs C(C1=C2) Characteristics	5

Test Circuit



H : 47,48

L : 1,2,19,22,43

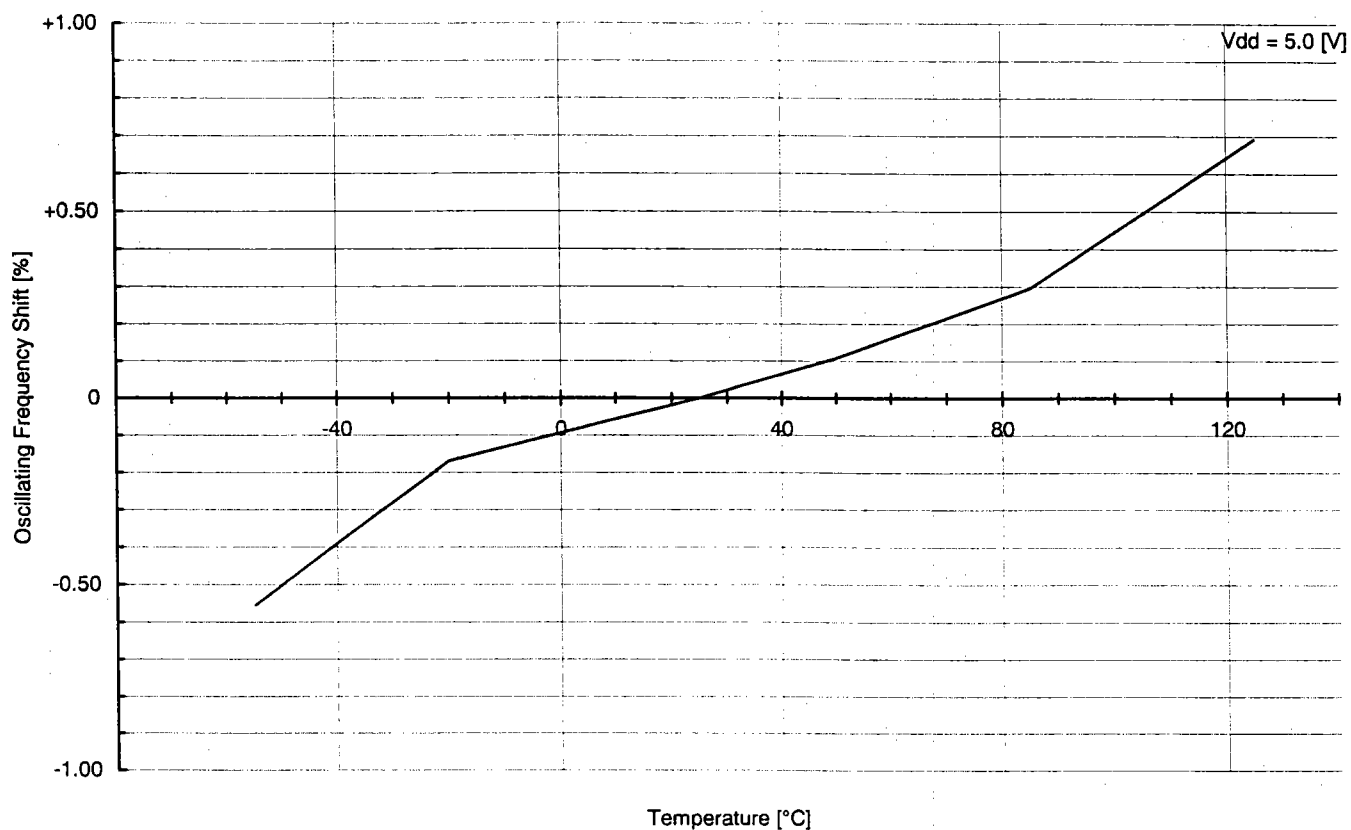
Recommendable Value

CERALOCK® : CSA8.00MTZ

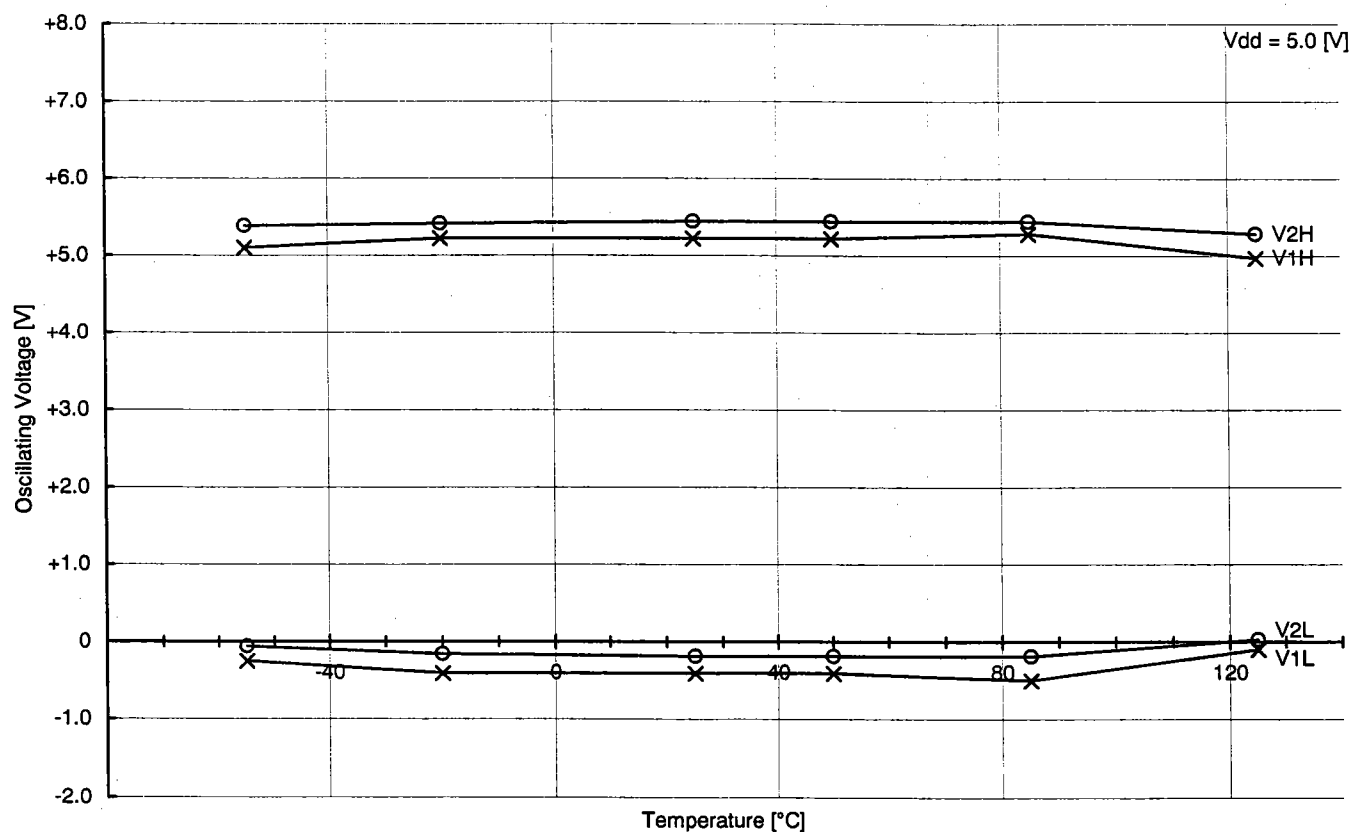
C1 = 30 [pF]

C2 = 30 [pF]

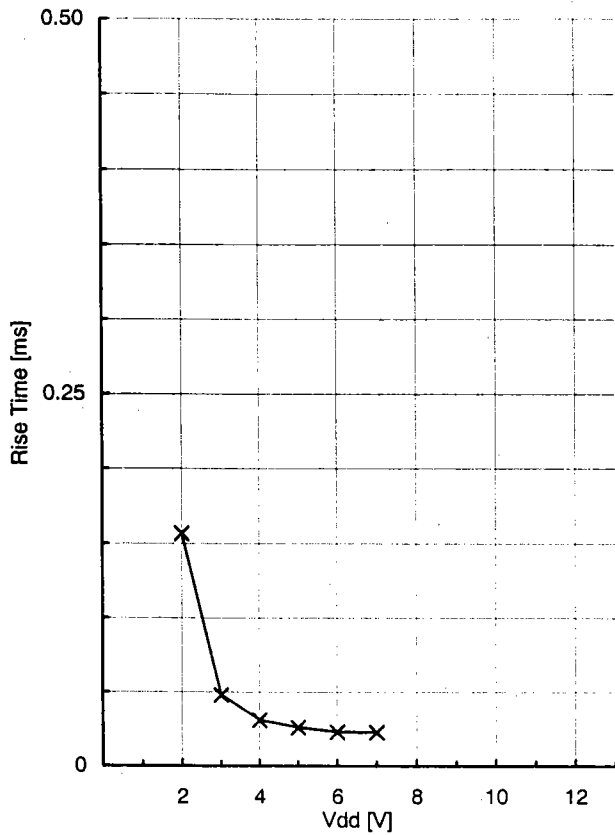
Temperature Characteristics of Oscillating Frequency
MODEL : CSA8.00MTZ with M34551M8XXXFP



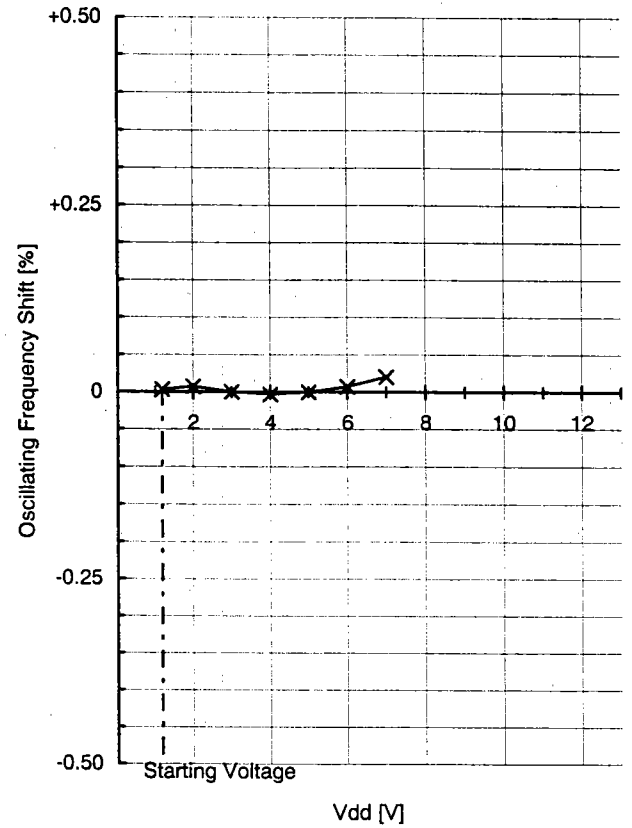
Temperature Characteristics of Oscillating Voltage
MODEL : CSA8.00MTZ with M34551M8XXXFP



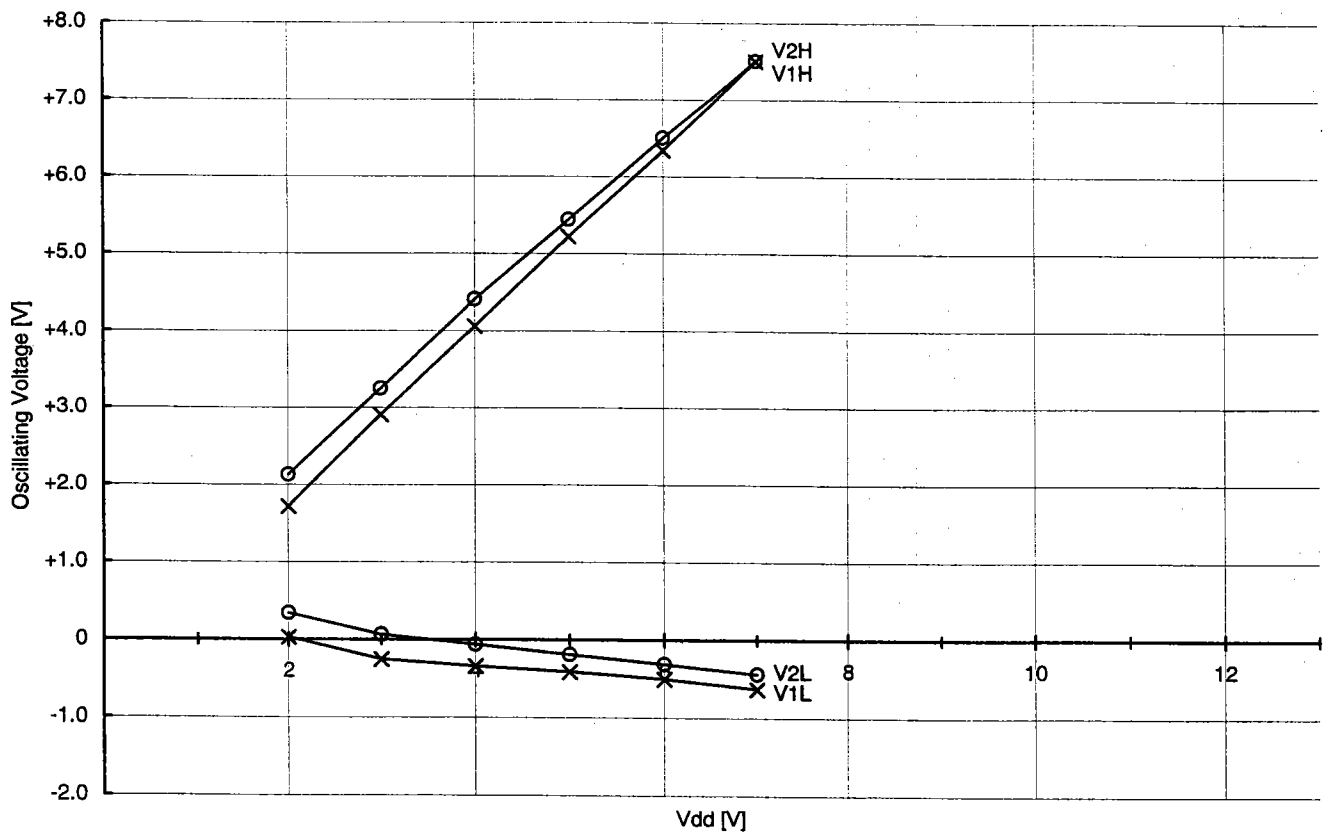
Rise Time vs Vdd Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



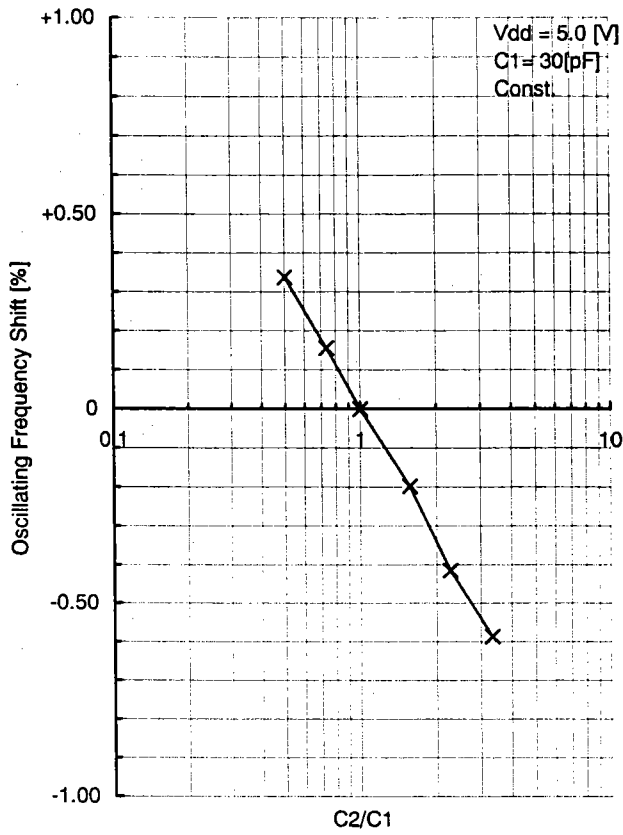
Oscillating Frequency vs Vdd Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



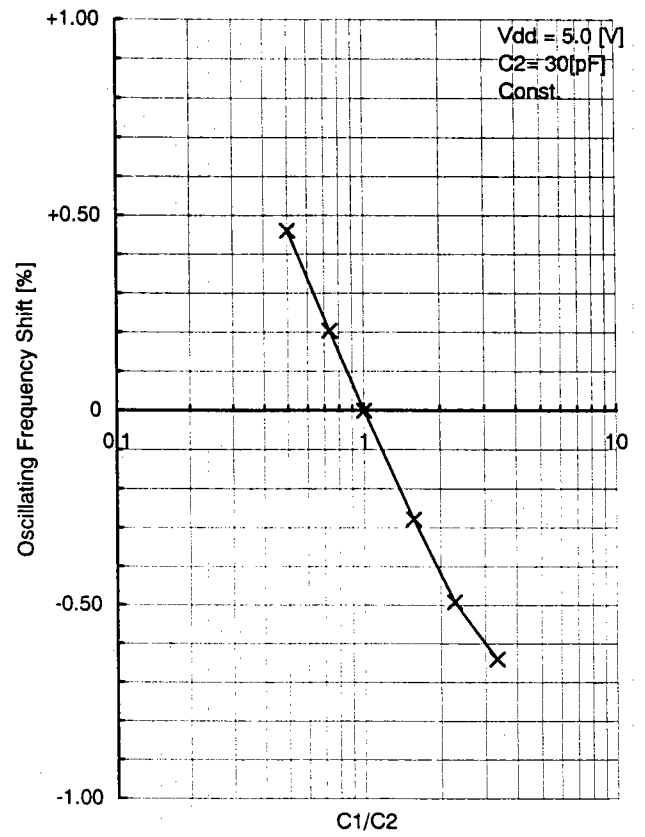
Oscillating Voltage vs Vdd Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



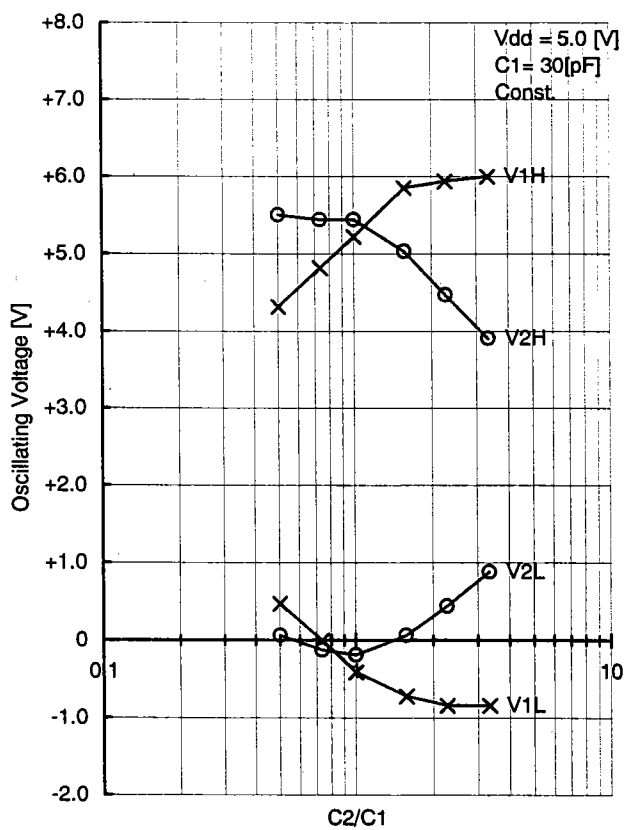
Oscillating Frequency vs (C1,C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



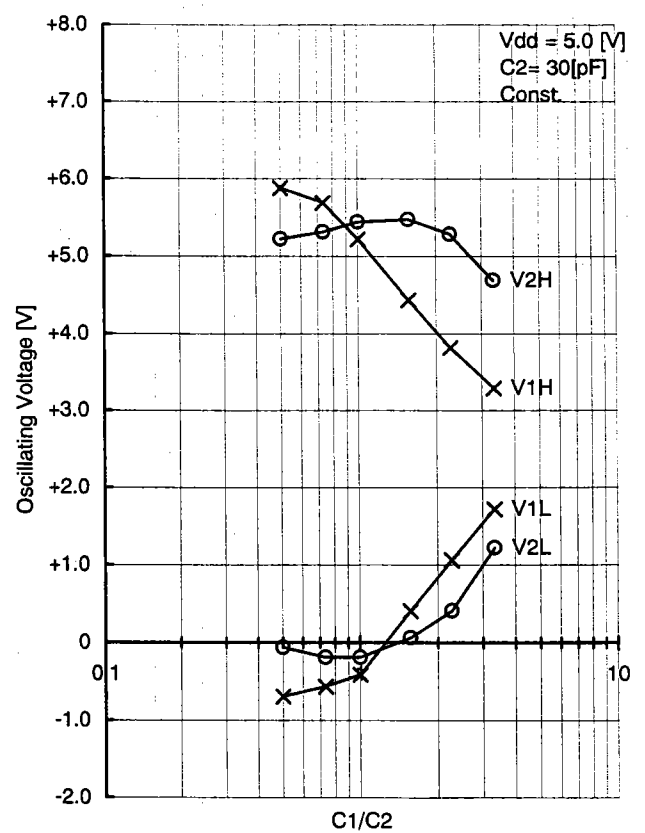
Oscillating Frequency vs (C1,C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



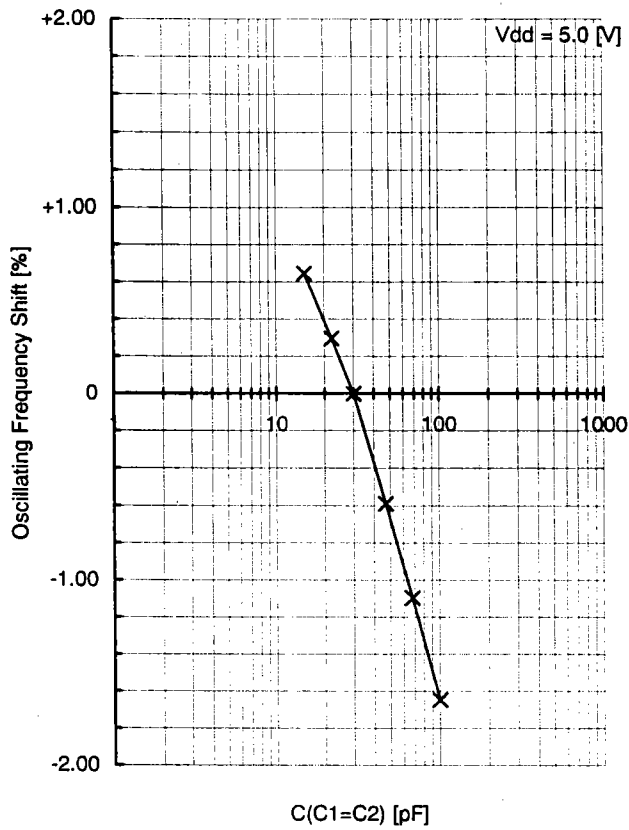
Oscillating Voltage vs (C1,C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



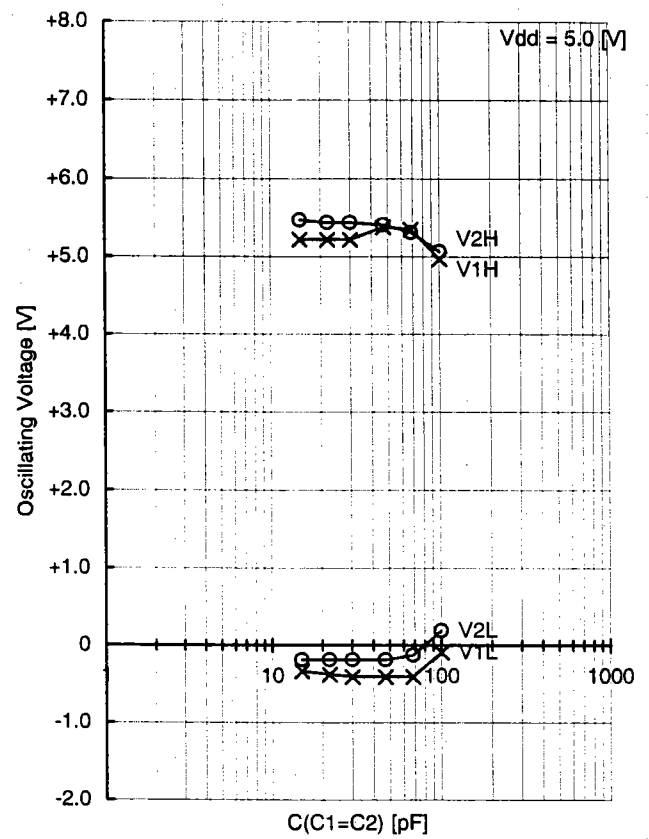
Oscillating Voltage vs (C1,C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



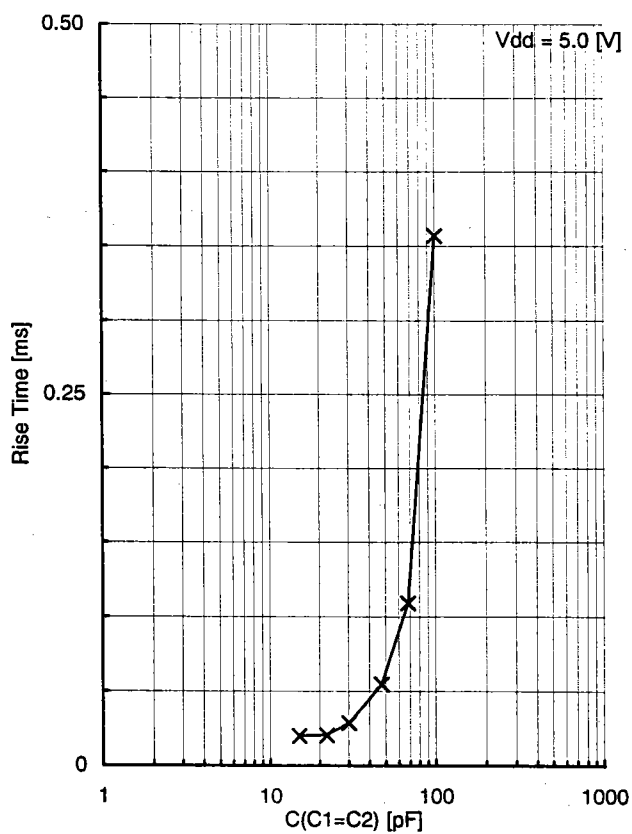
Oscillating Frequency vs C(C1=C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



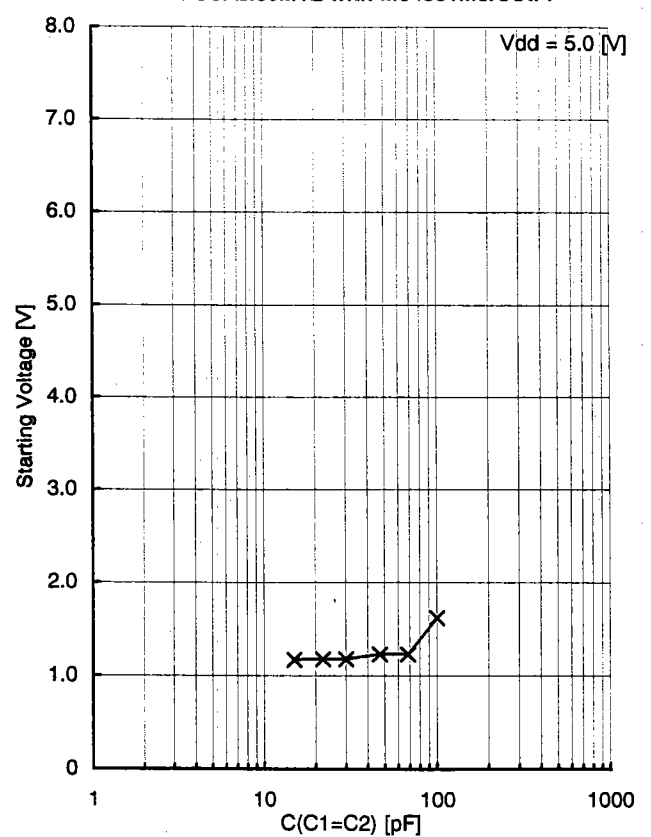
Oscillating Voltage vs C(C1=C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



Rise Time vs C(C1=C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



Starting Voltage vs C(C1=C2) Characteristics
MODEL : CSA8.00MTZ with M34551M8XXXFP



Appendixes

6.	Comparison Table	6
7.	Frequency Correlation Data	7

Comparison Table

IC : No	V1H [V]	V1L [V]	V1p-p [V]	V2H [V]	V2L [V]	V2p-p [V]	Fosc [kHz]	Trise [ms]	Vstart [V]
TYP	5.22	-0.37	5.59	5.44	-0.16	5.60	8015.579	0.027	1.20
HH	5.22	-0.41	5.63	5.44	-0.19	5.63	8015.208	0.030	1.51
LL	5.22	-0.41	5.63	5.34	-0.28	5.62	8014.667	0.022	1.20

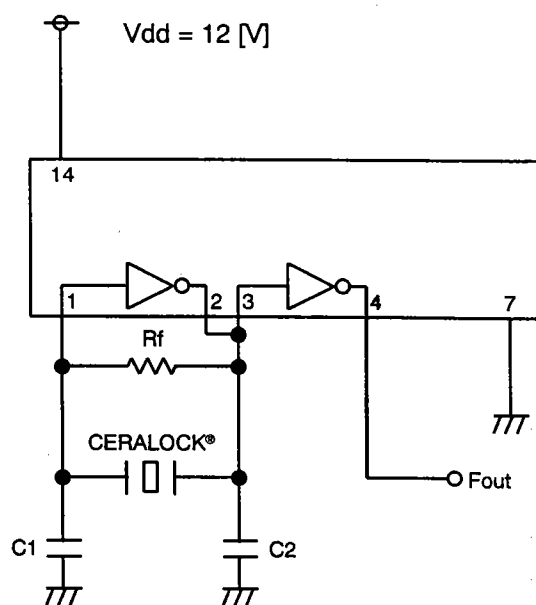
Ref.

Performance described page 2 to 5 were measured with IC No. TYP

Frequency Correlation Data

Sample No.	M34551M8XXXFP Fosc [kHz]	CD4069UBE Fosc [kHz]	Shift [%]
1	8015.267	8010.480	0.0598
2	8001.342	7996.542	0.0600
3	8008.136	8003.238	0.0612
4	8009.126	8004.223	0.0612
5	8005.138	8000.360	0.0597
$\bar{X}$	8007.802	8002.969	0.0604

muRata Standard Circuit



CERALOCK® : CSA8.00MTZ

C1 = 30 [pF]

C2 = 30 [pF]

Rf = 1 [Mohm]