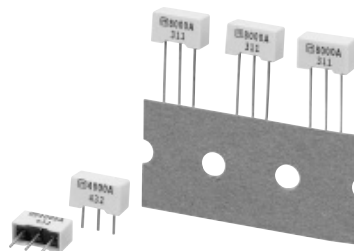


Ceramic Resonators, Case Type

Type: **EN** (3.0 to 50.0 MHz)



■ Features

- Wide range of oscillation frequencies: 3.0 to 50 MHz
- High accuracy and stability
Initial frequency tolerance: $\pm 0.5\%$
- Saves height on P.C. board (Height: 5 mm max.)
- Taped version is available for automatic insertion
- RoHS compliant

■ Recommended Applications

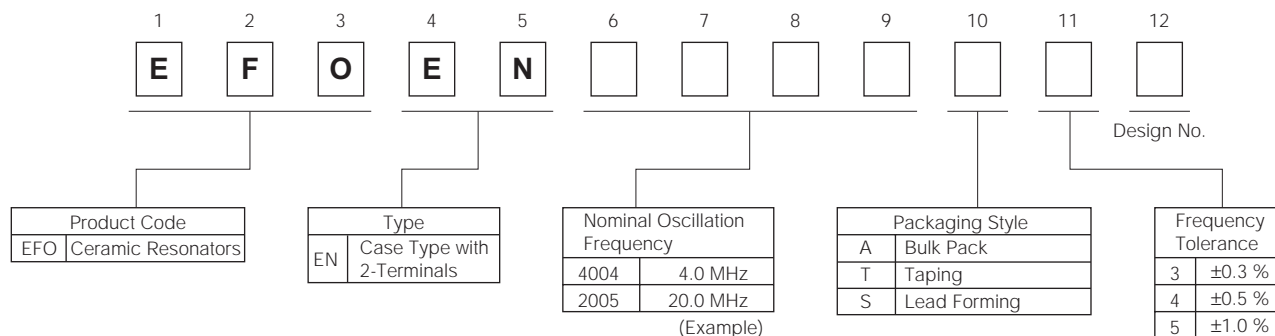
- Clock generator for micro-processors
- Carrier circuit between telecommunication equipment (telephone to telephone, personal computer to printer)

■ Safety Precautions (See Page 187 to 188)

■ Handling Precautions

See Page 208

■ Explanation of Part Numbers



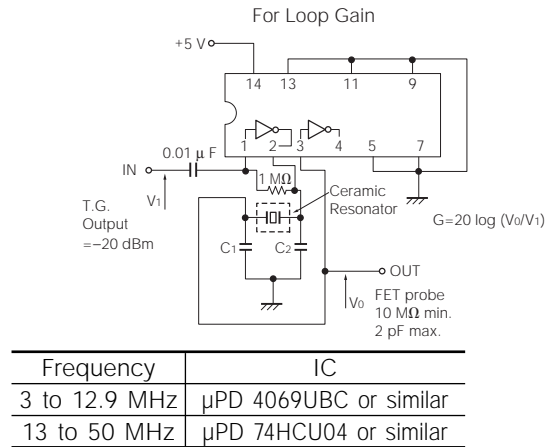
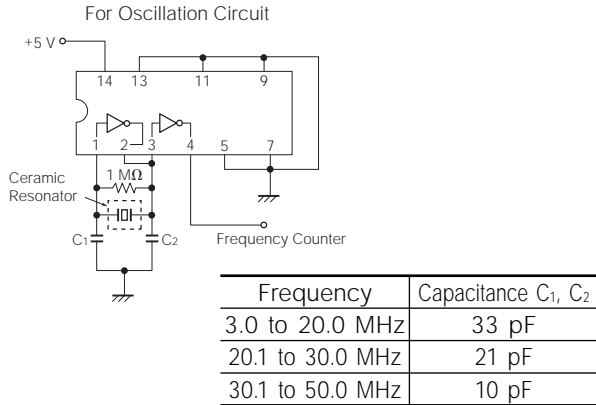
■ Ratings and Characteristics

Part Number		Oscillation Frequency	Loop Gain (G)	Temperature Characteristics
Bulk Pack	Taping			
EFOEN3584A4	EFOEN3584T4	3.58 MHz $\pm 0.5\%$	12 dB	Maximum frequency drift: $\pm 0.3\%$, -20 to $80\text{ }^\circ\text{C}$
EFOEN4004A4	EFOEN4004T4	4.00 MHz $\pm 0.5\%$		
EFOEN4194A4	EFOEN4194T4	4.19 MHz $\pm 0.5\%$		
EFOEN5004A4	EFOEN5004T4	5.00 MHz $\pm 0.5\%$		
EFOEN6004A4	EFOEN6004T4	6.00 MHz $\pm 0.5\%$	10 dB	
EFOEN8004A4	EFOEN8004T4	8.00 MHz $\pm 0.5\%$		
EFOEN1005A4	EFOEN1005T4	10.00 MHz $\pm 0.5\%$	6 dB	
EFOEN2005A4	EFOEN2005T4	20.00 MHz $\pm 0.5\%$	14 dB	
EFOEN3385A4	EFOEN3385T4	33.868 MHz $\pm 0.5\%$	8 dB	

- Operating Temperature Range: -20 to $80\text{ }^\circ\text{C}$
- Frequency Drift: 0.3% max./10 years

Note : If customer used other frequency, please ask us separately.

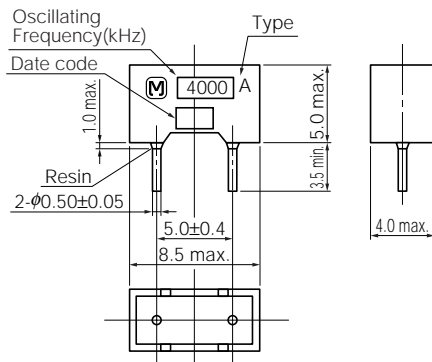
Test Circuit Diagram



Dimensions in mm (not to scale)

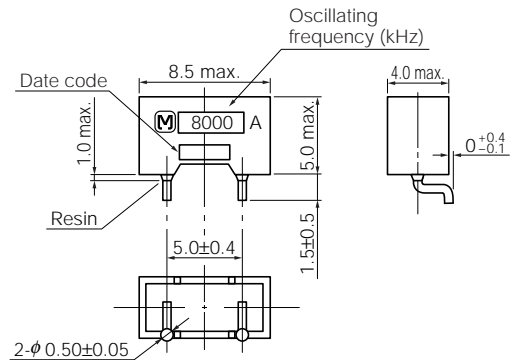
Bulk Pack

EFOEN□□□□A□



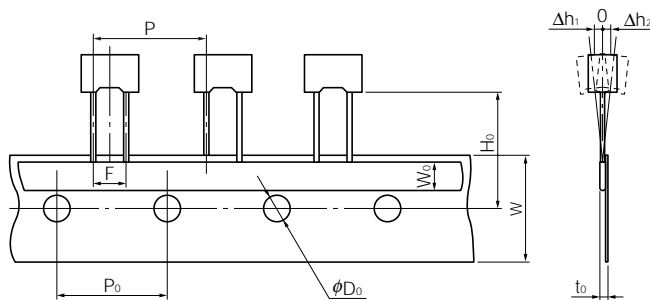
Lead Forming

EFOEN□□□□S□

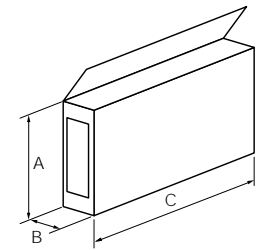


Dimensions for Taping in mm (not to scale)

EFOEN□□□□T□



Dimensions	
P	12.7 ± 1.0
P ₀	12.7 ± 0.3
W	18.0 ± 1.0
W ₀	6.0 min.
H ₀	18.5 ± 0.5
φD ₀	4.0 ± 0.2
F	5.0 ± 0.4
t ₀	1.5 max.
Δh ₁ , Δh ₂	2.0 max.

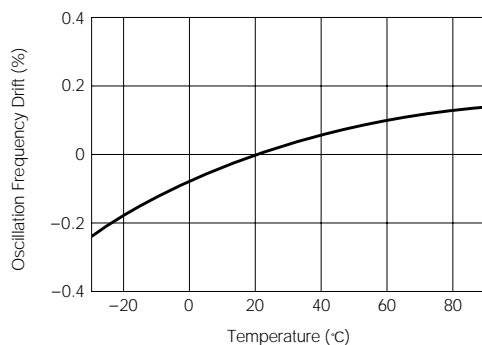


Dimensions*	
A	160 to 170
B	40 to 45
C	330

*Tolerance: ±3 mm

Typical Characteristics (EFOEN4004A4)

Temperature Characteristics



Standard Packing Quantity

Taping Pack	Bulk Pack
1000 pcs./box	4000 pcs./box