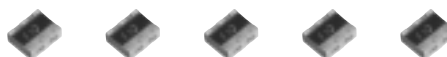


Ceramic Resonators, Chip Type

Type: **JN** (16 to 50 MHz)



■ Features

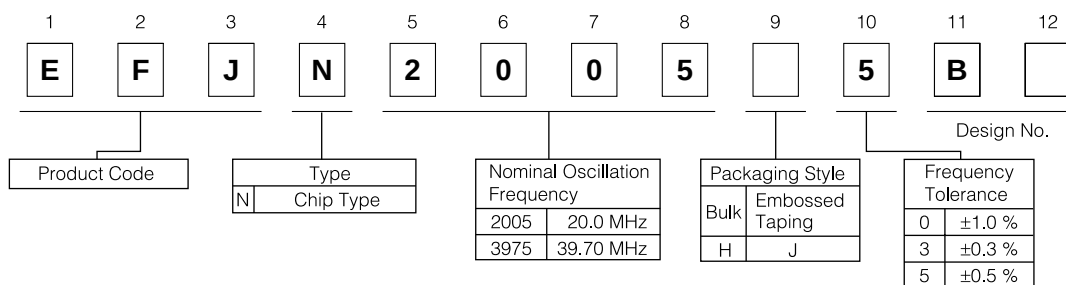
- Low Profile Type (1.2 mm maximum in thickness)
- Designed for lead free soldering
- Wide Oscillation Frequency : 16 to 50 MHz
- High reliability against soldering heat and mechanical stress

■ Recommended Applications

- Clock generator for microprocessors
- Carrier between telecommunication equipment (Telephone to telephone, personal computer to printer)

■ Precautions for Safety (See Page 218 to 219)

■ Explanation of Part Numbers



■ Ratings and Characteristics

Part Number		Oscillation Frequency (fo)	Loop Gain (G)	Temperature Characteristics
Bulk Pack	Embossed Taping			
EFJN1695H5B	EFJN1695J5B	16.93 MHz ±0.5 %	14 dB min.	Maximum frequency drift: ±0.2 %, –20 to 80 °C
EFJN2005H5B	EFJN2005J5B	20.00 MHz ±0.5 %		
EFJN2505H5B	EFJN2505J5B	25.00 MHz ±0.5 %	10 dB min.	
EFJN3205H5B	EFJN3205J5B	32.00 MHz ±0.5 %		
EFJN3385H5B	EFJN3385J5B	33.868 MHz ±0.5 %		
EFJN4005H5B	EFJN4005J5B	40.00 MHz ±0.5 %		

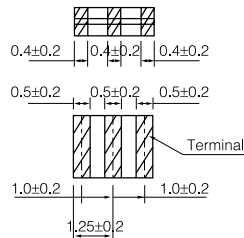
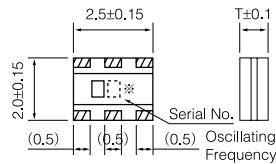
- Operating Temperature Range: -20 to 80 °C
- Frequency Drift : 0.3% max./10 years

Note:
Also available are types other than above standard products in the frequency range of 16.0 to 50.0 MHz.

■ Dimensions in mm (not to scale)

● Bulk

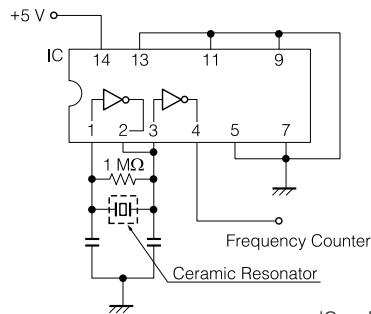
[Type JN] EFJN□□□□H□B



Thickness changes with Products
(40 MHz : 0.80 mm)

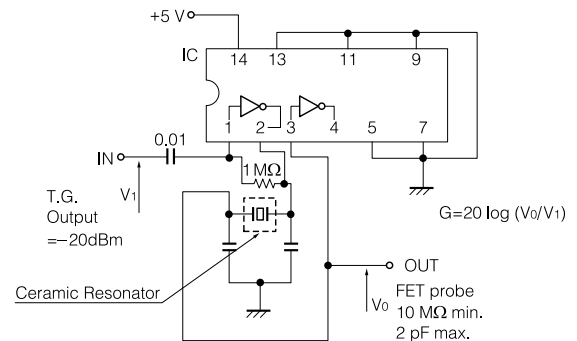
■ Test Circuits Diagram

For Oscillation Circuit



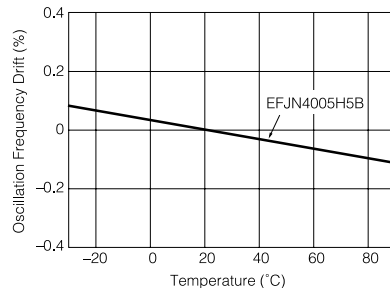
IC : μPD 74HCU04

For Loop Gain



■ Typical Characteristics

Temperature Characteristics



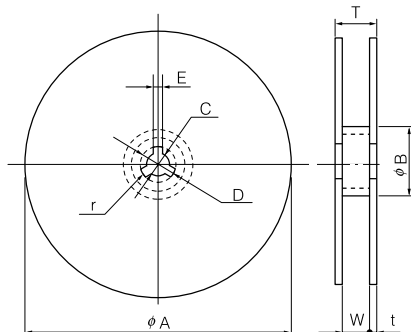
■ Packaging Specifications

Supplied in bulk or taped & reel packing style

● Standard Packing Quantity

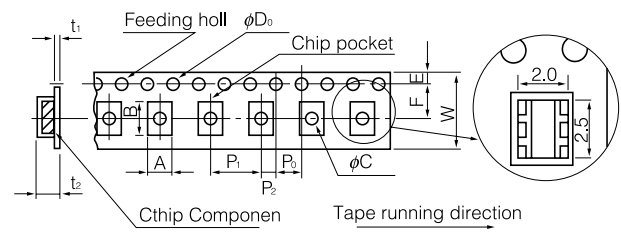
Type	Embossed Taping	Bulk
JN	3000 pcs./reel	500 pcs./bag

● Dimensions for Reel in mm (not to scale)



● Embossed Taping

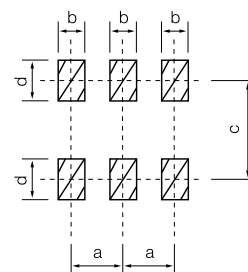
EFJN□□□□J□B



Dim.	A	B	W	F	E	P ₁
(mm)	2.3	2.8	8.0±0.2	3.5±0.1	1.75±0.1	4.0±0.1
Dim.	P ₂	P ₀	φD ₀	t ₁	t ₂	φC
(mm)	2.0±0.1	4.0±0.1	1.5 ^{+0.1} _{-0.1}	0.35	1.65	1.0

■ Recommended Land Dimensions

[Type JN]



	Type JN
a	1.0
b	0.5
c	2.0
d	0.8

(mm)

[Type JN]

Dim.	φA	φB	C	D	E
(mm)	180±5	60 min.	13±0.2	21±0.8	2.0±0.5
Dim.	W	T	t	r	
(mm)	9.0 ^{+1.0} _{-0.5}	14.0 max.	2.5 max.	1.0	