# **Ceramic Resonators, Chip Type** (Built-In Capacitors Type)

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



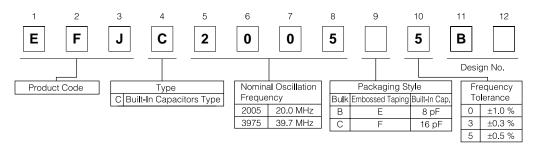
#### Features

- 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
- Contributes simplification of oscillation circuits and reduces the numbers of circuit parts

#### ■ Recommended Applications

- Clock generator for microprocessers
- 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	Loop Gain	Temperature	Built-in Capacitors
Bulk Pack	Embossed Taping	(fo)	(G)	Characteristics	(Reference)
EFJC2505B5B	EFJC2505E5B	25.00 MHz ±0.5 %	10 dB min. 14 dB min.	Maximum frequency drift ±0.2 %, -20 to 80 °C	8 pF
EFJC3205B5B	EFJC3205E5B	32.00 MHz ±0.5 %			
EFJC3385B5B	EFJC3385E5B	33.868 MHz ±0.5 %			
EFJC4005B5B	EFJC4005E5B	40.00 MHz ±0.5 %			
EFJC1695C5B	EFJC1695F5B	16.93 MHz ±0.5 %			16 pF
EFJC2005C5B	EFJC2005F5B	20.00 MHz ±0.5 %			

Operating Temperature Range: –20 to 80 °C

• Frequency Drift: 0.3% max./10 years

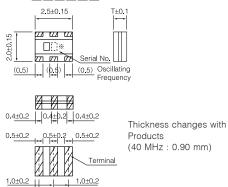
Note:

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

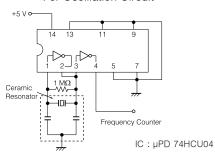
#### [Type JC] EFJC



# ■ Test Circuits Diagram

1.25±02

For Oscillation Circuit



#### ■ Typical Characteristics

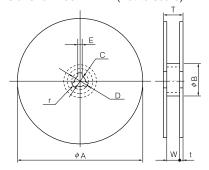
## ■ Packaging Specifications

Supplied in bulk or taped & reel packing style

#### Standard Packing Quantity

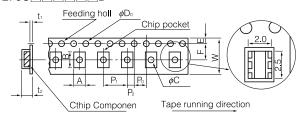
Туре	Embossed Taping	Bulk
JC	3000 pcs./reel	500 pcs./bag

#### Dimensions for Reel in mm (not to scale)



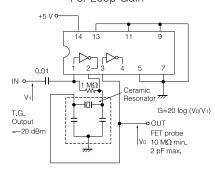
# Embossed Taping

# EFJC B



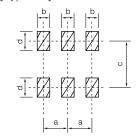
Dim.	А	В	W	F	Е	P <sub>1</sub>
(mm)	2.3	2.8	8.0±0.2	3.5±0.1	1.75±0.1	4.0±0.1
Dim.	P <sub>2</sub>	P <sub>0</sub>	$\phi D_0$	t <sub>1</sub>	t <sub>2</sub>	$\phi$ C
(mm)	2.0±0.1	4.0±0.1	1.5 +0.1	0.35	1.65	1.0

### For Loop Gain



## ■ Recommended Land Dimensions

[Type JC]



	Type JC
а	1.0
b	0.5
С	2.0
d	0.8
	(mm)

[Type JC]

Dim.	φΑ	φB	С	D	E
(mm)	180±5	60 min.	13±0.2	21±0.8	2.0±0.5
Dim.	W	Т	t	r	
(mm)	9.0 +1.0	14.0 max.	2.5 max.	1.0	•