



# New High Speed Decoupling Device Proadlizer® PF/B Series

## APPLICATION

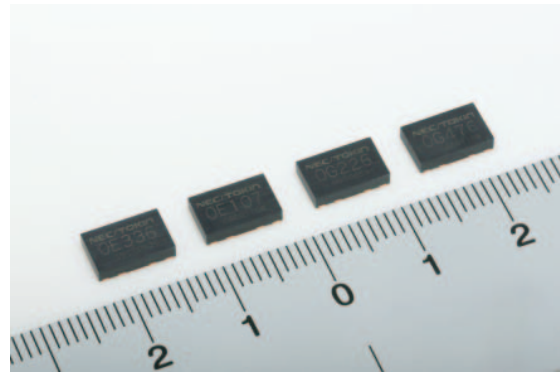
- High speed and high power CPU decoupling
- EMI solution for 10 MHz range or above
- High switching frequency DC/DC converter output capacitor

## FEATURES

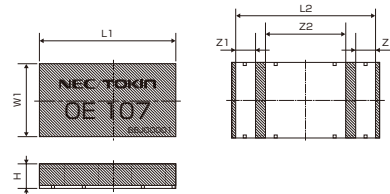
- Excellent noise absorption performance at GHz frequency
- High Capacitance and very low ESR based on our Conductive Polymer technology
- Reduction of passive components for decoupling circuit

## PERFORMANCE

No	Test Item	Performance	Test Condition															
1	Operating Temperature	55~+125																
2	Rated Voltage	2.5V,4V																
3	Capacitance	22μF~100μF	120Hz															
4	Capacitance Tolerance	±20%	120Hz															
5	LC	Refer Rating table	Applied Rating Voltage,5min															
6	Dissipation Factor	Refer Rating table	120Hz															
7	ESR	Refer Rating table	100kHz															
8	Surge Voltage	Capacitance Change: Within ±20% of Initial specification LC: Lower than initial specification Dissipation Factor: Lower than 2times initial specification ESR: Lower than 2times initial specification	Applied 115% of Rating Voltage at 125 1000 cycles															
9	Temperature Stability	<table border="1"> <thead> <tr> <th></th> <th>-55℃</th> <th>125℃</th> </tr> </thead> <tbody> <tr> <td>Capacitance Change</td> <td>Within 0% to -20%</td> <td>Within +50% to 0%</td> </tr> <tr> <td>LC</td> <td>Lower than initial specification</td> <td>Lower than 10 times initial specification</td> </tr> <tr> <td>tanδ</td> <td>Lower than initial specification</td> <td>Lower than 1.5times initial specification</td> </tr> <tr> <td>ESR</td> <td>Lower than initial specification</td> <td>Lower than 1.5times initial specification</td> </tr> </tbody> </table>		-55℃	125℃	Capacitance Change	Within 0% to -20%	Within +50% to 0%	LC	Lower than initial specification	Lower than 10 times initial specification	tanδ	Lower than initial specification	Lower than 1.5times initial specification	ESR	Lower than initial specification	Lower than 1.5times initial specification	
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ESR	Lower than initial specification	Lower than 1.5times initial specification																
10	Temperature Cycling	Capacitance Change: Within ±20% of initial specification LC: Lower than initial specification Dissipation Factor: Lower than 2times initial specification ESR: Lower than 2times initial specification	-55 to 125 5cycles															
11	Resistance to Soldering Heat	Capacitance Change: Within ±20% of initial specification LC: Lower than initial specification Dissipation Factor: Lower than initial specification ESR: Lower than initial specification	Reflow soldering 240 ,10sec. Peak															
12	Dump Heat	Capacitance Change: Within +30% to -20% of initial specification LC: Lower than initial specification Dissipation Factor: Lower than 2times initial specification ESR: Lower than 2times initial specification	65 90 to 95%RH 500hour															
13	Endurance	Capacitance Change: Within ±20% of initial specification LC: Lower than initial specification Dissipation Factor: Lower than 2times initial specification ESR: Lower than 2times initial specification	125 Applied Rating Voltage 1000hour															

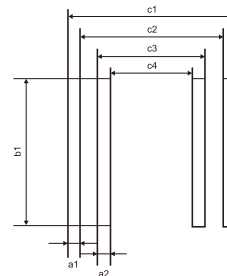


## DIMENSIONS [mm]



Case Code	L1	L2	W1	H	Z1	Z2
855320	8.5±0.2	8.2±0.2	5.3±0.2	2.0Max	1.2±0.2	4.6±0.2

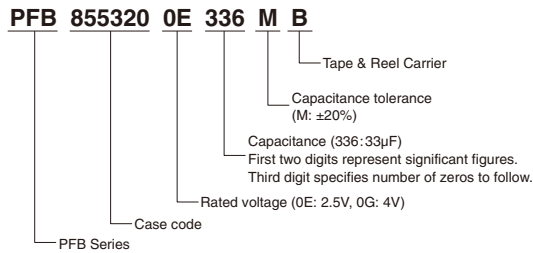
## LAYOUT LAND PATTERN (Tentative)



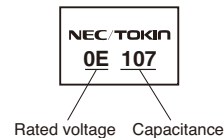
Case Code	a1	a2	b1	c1	c2	c3	c4
855320	1.3	1.0	6.0	8.4	5.8	4.6	2.6

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**PART NUMBER SYSTEM**



**MARKING**

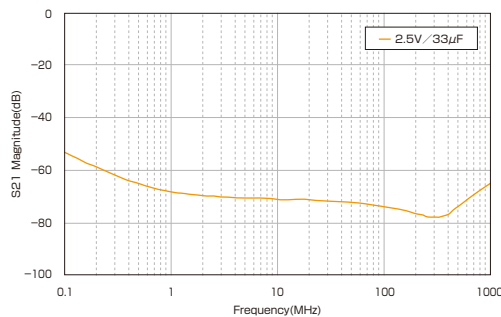


**RATINGS (Initial specification)**

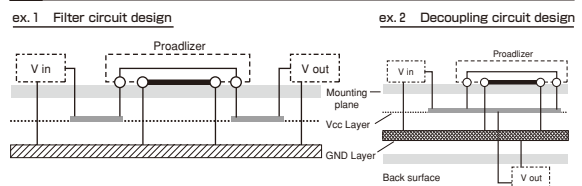
Rated Voltage (V)	Capacitance (μF)	Dissipation Factor (%)	LC (μA)	ESR (mΩ) at 100kHz	Case Code	Part Number
2.0	270	5	270	50	855320	PFB8553200D277MB ★
2.5	33	5	41.3	50	855320	PFB8553200E336MB
2.5	100	5	125	30	855320	PFB8553200E107MB
4	22	5	44	50	855320	PFB8553200G226MB
4	47	5	94	30	855320	PFB8553200G476MB

★Under development

**PERFORMANCE (reference)**



**NOTE (reference)**



- ex.1 An effective filtering performance can be achieved by separating input and output in the VCC layer.
- ex.2 An effective decoupling performance can be achieved by not separating Vcc layer. This method also makes surface mounting of loads(CPU etc.) efficient.

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