



New High Speed Decoupling Device
Proadlizer® PF/B Series

APPLICATION

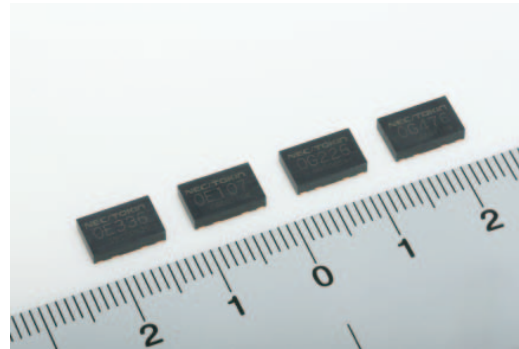
- High speed and high power CPU decoupling
- EMI solution for 10 MHz range or above
- High switching frequency DC/DC converter output capacitor

FEATURES

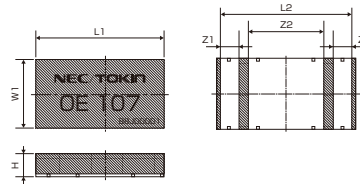
- Excellent noise absorption performance at GHz frequency
- High Capacitance and very low ESR based on our Conductive Polymer technology
- Reduction of passive components for decoupling circuit

PERFORMANCE

No	Test Item	Performance	Test Condition															
1	Operating Temperature	55~+125																
2	Rated Voltage	2.5V,4V																
3	Capacitance	22 μ F~100 μ F	120Hz															
4	Capacitance Tolerance	\pm 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 \pm 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	tan δ	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 \pm 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 \pm 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 \pm 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															

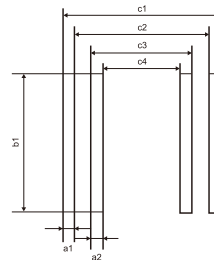


DIMENSIONS [mm]



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

LAYOUT LAND PATTERN (Tentative)

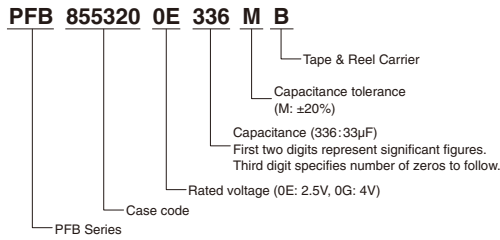


Case Code	a1	a2	b1	c1	c2	c3	c4
855320	1.3	1.0	6.0	8.4	5.8	4.6	2.6

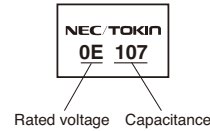


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PART NUMBER SYSTEM



MARKING

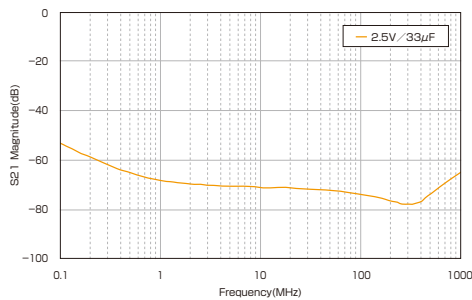


RATINGS (Initial specification)

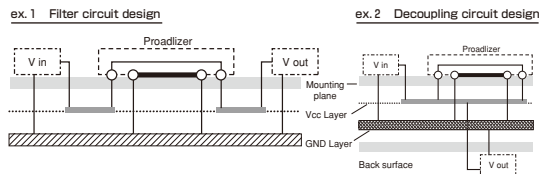
Rated Voltage (V)	Capacitance (μF)	Dissipation Factor (%)	LC (μA)	ESR (mΩ) at 100kHz	Case Code	Part Number
2.0	270	5	270	50	855320	PFB8553200D277MB ★
2.5	33	5	41.3	50	855320	PFB8553200E336MB
2.5	100	5	125	30	855320	PFB8553200E107MB
4	22	5	44	50	855320	PFB8553200G226MB
4	47	5	94	30	855320	PFB8553200G476MB

★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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