



New High Speed Decoupling Device Proadlizer[®] PF/B Series

APPLICATION

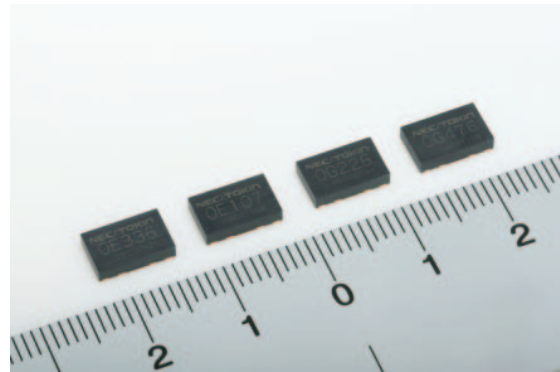
- High speed and high power CPU decoupling
- EMI solution for 10 MHz range or above
- High switching frequency DC/DC converter output capacitor

FEATURES

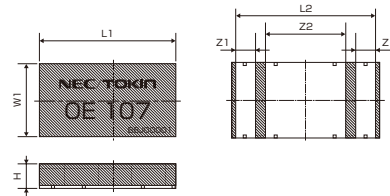
- Excellent noise absorption performance at GHz frequency
- High Capacitance and very low ESR based on our Conductive Polymer technology
- Reduction of passive components for decoupling circuit

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	
	-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																
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															

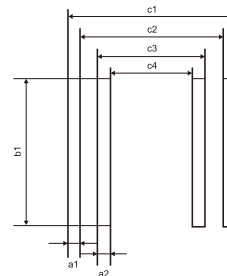


DIMENSIONS [mm]



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

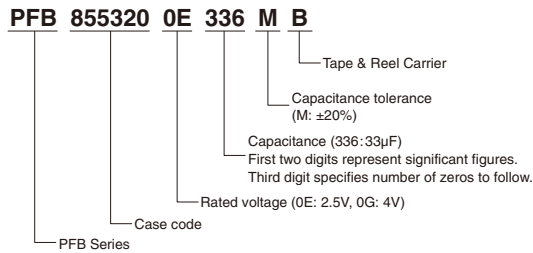
LAYOUT LAND PATTERN (Tentative)



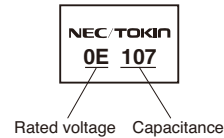
Case Code	a1	a2	b1	c1	c2	c3	c3
855320	1.3	1.0	6.0	8.4	5.8	4.6	2.6

⚠
 ● All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
 ● Please request for a specification sheet for detailed product data prior to the purchase.
 ● Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

PART NUMBER SYSTEM



MARKING

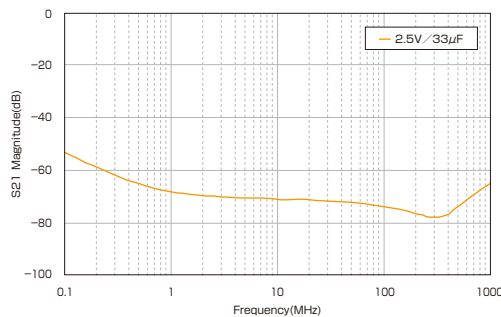


RATINGS (Initial specification)

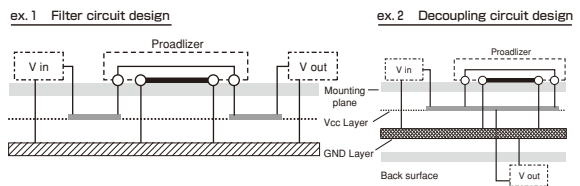
Rated Voltage (V)	Capacitance (μF)	Dissipation Factor (%)	LC (μA)	ESR (mΩ) at 100kHz	Case Code	Part Number
2.0	270	5	270	50	855320	PFB8553200D277MB ★
2.5	33	5	41.3	50	855320	PFB8553200E336MB
2.5	100	5	125	30	855320	PFB8553200E107MB
4	22	5	44	50	855320	PFB8553200G226MB
4	47	5	94	30	855320	PFB8553200G476MB

★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.

NEC/TOKIN NEC TOKIN Corporation

2nd Sales Unit
Chiyoda First Bldg., 8-1, Nishi-Kanda 3-chome, Chiyoda-ku, Tokyo 101-8362, Japan

1st Overseas Sales Dept.
Phone: 81-3-3515-9222 Fax: 81-3-3515-9223

2nd Overseas Sales Dept.
Phone: 81-3-3515-9224 Fax: 81-3-3515-9223

3rd Overseas Sales Dept.
Phone: 81-3-3515-9228 Fax: 81-3-3515-9223

NEC TOKIN Korea Co., Ltd.
518, Korea City AIR-Terminal B/D, 159-6, Samsung-dong, Kangnam-gu, Seoul 135-728, Korea
Phone: 82-2-551-3651 Fax: 82-2-551-3650

NEC TOKIN America Inc. (Headquarters & Western Area Sales)
2460 North First Street, Suite 220, San Jose, California 95131, U.S.A.
Phone: 1-408-324-1790 Fax: 1-408-324-1497

Chicago Branch (Northeast Sales Office)
1600 Golf Road, Corporate Center-Suite 1228, Rolling Meadows, Illinois 60008 U.S.A.
Phone: 1-847-981-5047 Fax: 1-847-981-5051

Austin Branch (Southeast Sales Office)
11782 Jollyville Road, Suite 208, Austin, Texas 78759, U.S.A.
Phone: 1-512-219-4040 Fax: 1-512-219-4007

NEC TOKIN Hong Kong Ltd.
Unit Nos. 1512-1517, Level 15, Tower II, Grand Central Plaza,
138 Shatin Rural Committee Road, Shatin, New Territories, Hong Kong
Phone: 852-2730-0028 Fax: 852-2375-2508

NEC TOKIN Shanghai Co., Ltd.
Room 301-302, Metro Plaza, No.555 Loushanguan Road, Changning District, Shanghai, China 200051
Phone: 86-21-6228-0606 Fax: 86-21-6228-6862

NEC TOKIN Singapore Pte Ltd.
180 Cecil Street, #14-02/03 Bangkok Bank Building, Singapore 069546
Phone: 65-6223-7076 Fax: 65-6223-6093

NEC TOKIN Taiwan Co., Ltd.
Room 411, No.9, Lane 3, Minsheng W.Road, Taipei 104, Taiwan
Phone: 886-2-2521-3998 Fax: 886-2-2521-3993

NEC TOKIN Europe GmbH
Hellersbergstrasse 14, D-41460 Neuss, Germany
Phone: 49-2131-1866-0 Fax: 49-2131-1866-18

Munich Office
Sigmund-Riefler-Bogen 8, D-81829 Muenchen, Germany
Phone: 49-89-944-197-0 Fax: 49-89-944-197-10

France Branch
9, Rue Paul Dautier, 78142 Velizy-Villacoublay, France
Phone: 33-1-39-452011 Fax: 33-1-39-451209

Sweden Representative Office
Solkraftsvaegen 25, 13570 Stockholm, Sweden
Phone: 46-8-712-91-05 Fax: 46-8-712-91-10

© 2009 NEC TOKIN Corporation

Technical support
NEC TOKIN Global Marketing Division(Japan)
Phone: 81-3-3515-9264 Fax: 81-3-3515-9263

For inquiry, Please call Sales Promotion Department(Japan)
Phone: 81-3-3515-9220 Fax: 81-3-3515-9223

Precautions

- The names of the products and the specifications in this catalog are subject to change without notice for the sake of improvement. The manufacturer also reserves the right to discontinue any of these products. At the time of delivery, please ask for specifications sheets to check the contents in order to use the products properly and safely.
- Descriptions in this catalog regarding product characteristics and quality are based solely on discrete components. When using these components, be sure to check the specifications with the component in question mounted on the products.
- The manufacturer's warranty will not cover any disadvantage or damage caused by improper use of the products that deviates from the characteristics, specifications, or conditions for use described in this catalog.
- The products in this catalog are intended for use in ordinary electronic products. If any of these products are to be used in special applications requiring extremely high reliability, such as in aviation equipment and nuclear power controllers where product defects might pose a safety risk, please consult your NEC TOKIN sales representatives.
- Though the manufacturer has taken all possible precautions to ensure the quality and reliability of its products, improper use of products may result in bodily injury, fire, or similar accident. If you have any questions regarding the use of the products in question, please consult your NEC TOKIN sales representatives.
- Please be advised that the manufacturer accepts no responsibility for any infringement by users of the manufacturer's products on third party patents or industrial copyrights. The manufacturer is responsible only when such infringements are attributable to the structural design of the product and its manufacturing process.
- Export Control
For customers outside Japan
NEC TOKIN products should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons(nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.
For customers in Japan
For products which are controlled items subject to the, "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.
This catalog is current as of October 2009.



9653PFBVOL02E0912E1
Printed in Japan



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.