

Ultra-Low Ohmic Resistors for Current Detection

PMR10

●Features

- 1) Ultra low-ohmic resistance range (2mΩ~)
- 2) Lowest height ($\leq 0.5\text{mm}$)
- 3) Improved current detection accuracy by trimming-less structure.
Highly recommended for large current / High speed switching circuit.
- 4) Completely Pb free product
- 5) ISO9001- / ISO/TS 16949-approved

●Quick reference

The design and specifications are subject to change without prior notice. Before ordering or using, please check the latest technical specifications.

Part No.	Size code	Rated power (70°C)	Resistance tolerance	Temperature coefficient (ppm / °C)	Resistance value (mΩ)	Operating temperature range (°C)
PMR10	2012 (0805)	1/2W	F ($\pm 1\%$) G ($\pm 2\%$) J ($\pm 5\%$)	± 150	2, 3, 4, 5, 6, 7, 8, 9, 10	-55 to +155

●Dimensions (Unit : mm)

Part No.	Size code	L	W	t	b
PMR10	2012 (0805)	2.0 \pm 0.15	1.2 \pm 0.15	0.42 to 0.28 \pm 0.15	0.6 to 0.2 \pm 0.15

* : Each value range varies with the resistance.

The drawing shows three views of the resistor: a top view with length L and width W, a side view showing thickness t, and an end view showing two pads of width b.

Resistors

●Part No. Explanation

P M R 1 0 E Z P J V

Part No.	Resistance tolerance	Special part number	Nominal resistance																																
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>F</td><td>±1%</td></tr> <tr><td>G</td><td>±2%</td></tr> <tr><td>J</td><td>±5%</td></tr> </table>	F	±1%	G	±2%	J	±5%	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>U</td><td>5 to 10mΩ</td></tr> <tr><td>V</td><td>1 to 4mΩ</td></tr> </table>	U	5 to 10mΩ	V	1 to 4mΩ	Resistance code, 3 or 4 digits.																						
F	±1%																																		
G	±2%																																		
J	±5%																																		
U	5 to 10mΩ																																		
V	1 to 4mΩ																																		
			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Resistance tolerance</th> <th>Resistance code</th> </tr> <tr> <td>F</td> <td>: 4 digits</td> </tr> <tr> <td>G</td> <td>: 4 digits</td> </tr> <tr> <td>J</td> <td>: 3 digits</td> </tr> </table>	Resistance tolerance	Resistance code	F	: 4 digits	G	: 4 digits	J	: 3 digits																								
Resistance tolerance	Resistance code																																		
F	: 4 digits																																		
G	: 4 digits																																		
J	: 3 digits																																		
			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="2">Resistance Value (Ω)</th> <th colspan="2">Resistance Tolerance</th> </tr> <tr> <th>J</th> <th>F</th> </tr> <tr><td>2mΩ</td><td>2L0</td><td>2L00</td></tr> <tr><td>3mΩ</td><td>3L0</td><td>3L00</td></tr> <tr><td>4mΩ</td><td>4L0</td><td>4L00</td></tr> <tr><td>5mΩ</td><td>5L0</td><td>5L00</td></tr> <tr><td>6mΩ</td><td>6L0</td><td>6L00</td></tr> <tr><td>7mΩ</td><td>7L0</td><td>7L00</td></tr> <tr><td>8mΩ</td><td>8L0</td><td>8L00</td></tr> <tr><td>9mΩ</td><td>9L0</td><td>9L00</td></tr> <tr><td>10mΩ</td><td>10L</td><td>10L0</td></tr> </table>	Resistance Value (Ω)	Resistance Tolerance		J	F	2mΩ	2L0	2L00	3mΩ	3L0	3L00	4mΩ	4L0	4L00	5mΩ	5L0	5L00	6mΩ	6L0	6L00	7mΩ	7L0	7L00	8mΩ	8L0	8L00	9mΩ	9L0	9L00	10mΩ	10L	10L0
Resistance Value (Ω)	Resistance Tolerance																																		
	J	F																																	
2mΩ	2L0	2L00																																	
3mΩ	3L0	3L00																																	
4mΩ	4L0	4L00																																	
5mΩ	5L0	5L00																																	
6mΩ	6L0	6L00																																	
7mΩ	7L0	7L00																																	
8mΩ	8L0	8L00																																	
9mΩ	9L0	9L00																																	
10mΩ	10L	10L0																																	

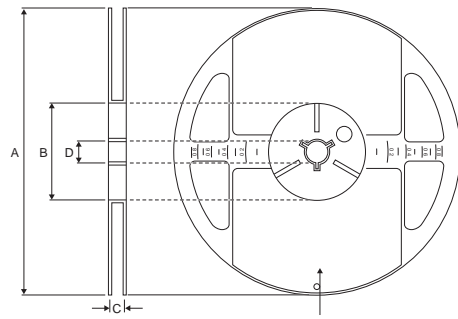
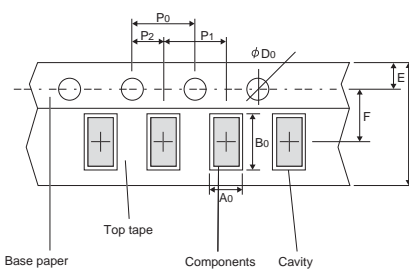
Packaging Specifications Code

Part No.	Code	Resistance tolerance		Packaging specifications	Reel	Basic ordering unit (pcs)
		J(±5%)	F(±1%)			
PMR10	EZP	⊙	⊙	Paper tape (4mm Pitch)	φ180mm (7in.)	5,000

Reel (φ180) : Compatible with JEITA standard "EIAJ ET-7200B"

⊙ : Standard product

●Packaging

Reel	Taping																												
 <p style="text-align: center;">EIAJ ET-7200B compliant</p> <p style="text-align: center;">(Unit : mm)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> <tr> <td>φ180⁰_{-1.5}</td> <td>φ60⁺¹₀</td> <td>9^{+1.0}₀</td> <td>φ13±0.2</td> </tr> </table>	A	B	C	D	φ180 ⁰ _{-1.5}	φ60 ⁺¹ ₀	9 ^{+1.0} ₀	φ13±0.2	 <p style="text-align: right;">(Unit : mm)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>W</th> <th>F</th> <th>E</th> <th>A₀</th> <th>B₀</th> </tr> <tr> <td>8.0±0.3</td> <td>3.5±0.05</td> <td>1.75±0.1</td> <td>1.65^{+0.2}_{-0.1}</td> <td>2.4^{+0.2}_{-0.1}</td> </tr> <tr> <th>D₀</th> <th>P₀</th> <th>P₁</th> <th>P₂</th> <th>K</th> </tr> <tr> <td>φ1.5^{+0.1}₀</td> <td>4.0±0.1</td> <td>4.0±0.1</td> <td>2.0±0.05</td> <td>Max. 1.1</td> </tr> </table>	W	F	E	A ₀	B ₀	8.0±0.3	3.5±0.05	1.75±0.1	1.65 ^{+0.2} _{-0.1}	2.4 ^{+0.2} _{-0.1}	D ₀	P ₀	P ₁	P ₂	K	φ1.5 ^{+0.1} ₀	4.0±0.1	4.0±0.1	2.0±0.05	Max. 1.1
A	B	C	D																										
φ180 ⁰ _{-1.5}	φ60 ⁺¹ ₀	9 ^{+1.0} ₀	φ13±0.2																										
W	F	E	A ₀	B ₀																									
8.0±0.3	3.5±0.05	1.75±0.1	1.65 ^{+0.2} _{-0.1}	2.4 ^{+0.2} _{-0.1}																									
D ₀	P ₀	P ₁	P ₂	K																									
φ1.5 ^{+0.1} ₀	4.0±0.1	4.0±0.1	2.0±0.05	Max. 1.1																									

Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

It is our top priority to supply products with the utmost quality and reliability. However, there is always a chance of failure due to unexpected factors. Therefore, please take into account the derating characteristics and allow for sufficient safety features, such as extra margin, anti-flammability, and fail-safe measures when designing in order to prevent possible accidents that may result in bodily harm or fire caused by component failure. ROHM cannot be held responsible for any damages arising from the use of the products under conditions out of the range of the specifications or due to non-compliance with the NOTES specified in this catalog.

Thank you for your accessing to ROHM product informations.

More detail product informations and catalogs are available, please contact your nearest sales office.

ROHM Customer Support System

THE AMERICAS / EUROPE / ASIA / JAPAN

www.rohm.com

Contact us : webmaster@rohm.co.jp