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Enhanced B-RP Series Resistors Feature Additional Case Sizes and Power Ratings, Increased Maximum Resistance

The Vishay Barry B-RP series of wraparound SMD chip resistors has been enhanced with multiple improvements including:

Key Improvements

- Range of case sizes expanded to include 12 options from 0302 to 2512
- Maximum resistance increased on AlN substrates
- Expanded power ratings to maximize resistor performance
- Additional terminal metallization finishes available to meet specific application needs
- Increased packaging options
- Consolidated datasheet with legacy and new part numbers cross referenced for improved customer experience and product identification

Size Options

- 0302 / 0402 / 0502 / 0503 / 0505 / 0603 / 0805 / 1005 / 1010 / 1206 / 2010 / 2512

Max. Resistance on AlN Resistors

- From 10 Ω - 1 kΩ to 10 Ω - 6 kΩ

Power and Customer Experience Improvements

POWER RATING BY SUBSTRATE PROPERTIES (W)						
CASE SIZE ⁽¹⁾	SUBSTRATE THICKNESS AND MATERIAL: GLOBAL P/N MATERIAL CODE (LEGACY P/N CODE) / THICKNESS / MATERIAL					
	A (90) 0.010" Al ₂ O ₃	B (91) 0.015" Al ₂ O ₃	C (93) 0.025" Al ₂ O ₃	L (20) 0.015" AlN	F (96) 0.015" BeO	G (98) 0.025" BeO
0302		0.15				
0402	0.25	0.25		1	2	
0502		0.25			3.5	
0503	0.35	0.35				
0505	1	1		4	5	
0603	1	1		3	4	
0805	1.5	1.5	1.5		8	8
1005		2		8	12	
1010		4	5	20	25	
1206		4	4	8	14	14
2010		5	5		30	35
2512		5	5		30	40



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Expanded Terminal Finishes

TERMINAL METALLIZATION										
CODE	LEGACY CODE	METALLIZATION	RoHS-COMPLIANT	BeO	ALUMINA	AIN	NON-MAGNETIC	SOLDER	EPOXY	WIREBOND
B	CB	Sn62 over nickel over silver	No	Yes	Yes	Yes	No	Yes	No	No
C	CC	100 % matte tin over copper over silver	Yes	Yes	Yes	Yes	Yes	Yes	No	No
T	CT	100 % matte tin over nickel over silver	Yes	Yes	Yes	Yes	No	Yes	No	No
A	AS	Tin / lead over platinum palladium gold	No	Yes	Yes	Yes	Yes	Yes	No	No
P	BA	Palladium silver	Yes	Yes	Yes	Yes	Yes	Yes ⁽¹⁾	Yes	No
G	GA	Gold	Yes	No	Yes	Yes	Yes	No	Yes	Yes
K	JA	Gold over platinum palladium gold	Yes	Yes	No	No	Yes	No	Yes	Yes

Increased Packaging Options

PACKAGING OPTIONS												
MODEL	SIZE	PACKAGING OPTIONS	BULK PACK QUANTITY			WAFFLE PACK QUANTITY			TAPE AND REEL QUANTITY ⁽¹⁾			TAPE WIDTH
			MIN.	MAX.	MULT.	MIN.	MAX.	MULT.	MIN.	MAX.	MULT.	
B-RP0302	0302	Bulk / waffle pack	100	1000	1	1	100	1	-	-	-	-
B-RP0402	0402	Bulk / tape and reel / waffle pack	100	1000	1	1	400	1	100	1000	1	8 mm
B-RP0502	0502	Bulk / tape and reel / waffle pack	100	1000	1	1	100	1	100	1000	1	8 mm
B-RP0503	0503	Bulk / tape and reel / waffle pack	100	1000	1	1	100	1	100	1000	1	8 mm
B-RP0504	0504	Bulk / tape and reel / waffle pack	100	1000	1	1	1000	1	100	1000	1	8 mm
B-RP0505	0505	Bulk / tape and reel / waffle pack	100	1000	1	1	1000	1	100	1000	1	8 mm
B-RP0603	0603	Bulk / tape and reel / waffle pack	100	1000	1	1	100	1	100	1000	1	8 mm
B-RP0702	0702	Bulk / tape and reel / waffle pack	100	500	1	1	100	1	100	1000	1	8 mm
B-RP0805	0805	Bulk / tape and reel / waffle pack	100	500	1	1	170	1	100	1000	1	8 mm
B-RP1005	1005	Bulk / tape and reel / waffle pack	100	500	1	1	170	1	100	1000	1	8 mm
B-RP1010	1010	Bulk / tape and reel / waffle pack	100	500	1	1	88	1	100	1000	1	8 mm
B-RP1206	1206	Bulk / tape and reel / waffle pack	100	250	1	1	170	1	100	1000	1	8 mm
B-RP1505	1505	Bulk / tape and reel / waffle pack	100	250	1	1	90	1	100	1000	1	12 mm
B-RP2010	2010	Bulk / tape and reel / waffle pack	50	250	1	1	45	1	100	1000	1	12 mm
B-RP2512	2512	Bulk / tape and reel / waffle pack	50	250	1	1	45	1	100	1000	1	12 mm

Useful Link

- Datasheet B-RP (<https://www.vishay.com/ppg?50500>)

Stock Availability

- [B-RP0302](#), [B-RP0402](#), [B-RP0502](#), [B-RP0503](#), [B-RP0504](#), [B-RP0505](#), [B-RP0603](#), [B-RP0702](#), [B-RP0805](#)
- [B-RP1005](#), [B-RP1206](#), [B-RP1505](#)
- [B-RP2010](#), [B-RP1512](#)

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