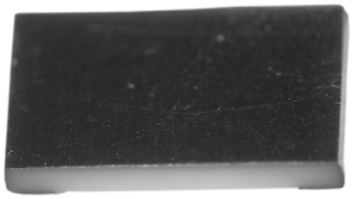
0 Ω SMD Thin Film Chip Resistor (Strap)



FEATURES

- SMD wraparound strap (0 Ω)
- Sizes available: 02016 to 2512
- Thin film technology
- Terminations: tin / silver or tin / lead
- Resistance value < 30 mΩ
- Maximum current through resistor: 0.5 A to 6.3 A
- Screening sequence under 0057 option
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available
RoHS* Available
HALOGEN FREE Available
GREEN (5-2008) Available

Note
* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

LINKS TO ADDITIONAL RESOURCES

3D Models S-Parameters

More and more, customers use SMD straps (0 Ω) to able or disable a function on their PCB. Vishay Sfernice offers straps in a wide range of standard dimensions: from 02016 to 2512.

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE	RESISTANCE RANGE Ω	RATED POWER W	MAXIMUM CURRENT A
PZR02016	02016	0.02	0.02	0.5
PZR0402	0402	0.02	0.04	1.4
PZR0603	0603	0.02	0.08	2
PZR0805	0805	0.02	0.15	2.7
PZR1206	1206	0.025	0.25	3.2
PZR2010	2010	0.025	0.8	5.7
PZR2512	2512	0.025	1	6.3

CLIMATIC SPECIFICATIONS

Operating temperature range	-55 °C; +155 °C
Storage temperature range	

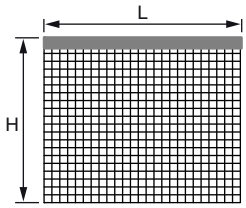
MECHANICAL SPECIFICATIONS

Substrate	Alumina
Technology	Thin film
Film	SnPb or SnAg over nickel barrier over Au
Terminations	**B type:** SnPb for solder reflow over nickel barrier **C type:** SnPb one face **N type:** SnAg for solder reflow over nickel barrier **F type:** SnAg one face

DIMENSIONS in millimeters

One Face Termination
PZR02016 to PZR2512

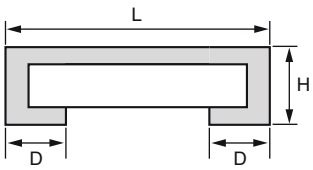
Side View



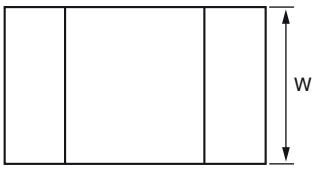
Active Face View

Wraparound Terminations
PZR0402 to PZR2512

Side View



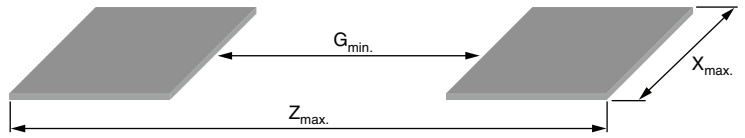
Bottom View



TERMINATIONS	One face	Wraparound	One face	Wraparound	One face	Wraparound	One face	Wraparound
MODEL	L		W		H		D	
PZR02016	0.48 (± 0.1)	n/a	0.39 (± 0.1)	n/a	0.42 ± 0.07		n/a	
PZR0402	1 ± 0.152		0.6 ± 0.127		0.5 ± 0.127		n/a	0.25 ± 0.1
PZR0603	1.52 ± 0.152		0.85 ± 0.127		0.5 ± 0.127		n/a	0.38 ± 0.13
PZR0805	1.91 ± 0.152		1.27 ± 0.127		0.5 ± 0.127		n/a	0.38 ± 0.13
PZR1206	3.06 ± 0.152		1.6 ± 0.127		0.5 ± 0.127		n/a	0.40 ± 0.13
PZR2010	5.08 ± 0.152		2.54 ± 0.127		0.5 ± 0.127		n/a	0.48 ± 0.13
PZR2512	6.35 ± 0.152		3.3 ± 0.127		0.5 ± 0.127		n/a	0.48 ± 0.13

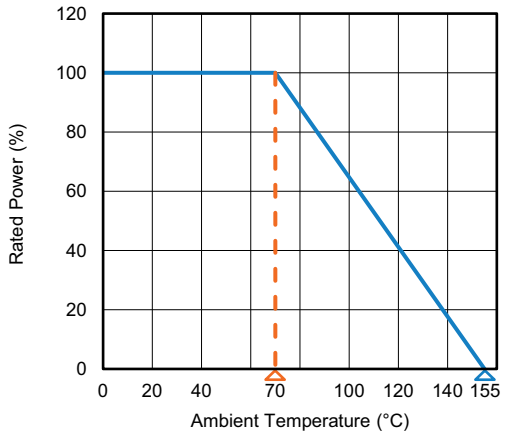
For technical questions, contact: sferthinfilm@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

SUGGESTED LAND PATTERN in millimeters



TERMINATIONS	One face	Wraparound	One face	Wraparound	One face	Wraparound
MODEL	**$Z_{max.}$**		**$G_{min.}$**		**$X_{max.}$**	
PZR02016	0.55	n/a	0.15	n/a	0.50	n/a
PZR0402	1.15	1.55	0.15		0.73	
PZR0603	1.67	2.37	0.35		0.98	
PZR0805	2.06	2.76	0.74		1.40	
PZR1206	3.21	3.91	1.85		1.73	
PZR2010	5.23	5.93	3.71		2.67	
PZR2512	6.5	7.20	4.91		3.32	

POWER DERATING CURVE



PACKAGING

Antistatic packaging: Waffle pack or paper tape or low conductivity plastic tape.

PZR02016 only available in plastic tape.

SIZE	MOQ	NUMBER OF PIECES PER PACKAGE			TAPE WIDTH
		WAFFLE PACK 2" × 2"	TAPE AND REEL		
			MIN.	MAX.	
02016	100	n/a	100	5000	8 mm
0402		340			
0603		100			
0805 0705				4000	
1206		140			
2010		60		1000	
2512		50		2000	12 mm

PACKAGING RULES

Waffle Pack

Can be filled up to maximum quantity indicated in the table here above, taking into account the minimum order quantity. When quantity ordered exceeds maximum quantity of a single waffle pack, the waffle packs are stacked up on the top of each other and closed by one single cover. **To get "not stacked up" waffle pack in case of ordered quantity > maximum number of pieces per package: Please consult Vishay Sfernice for specific ordering code**.

Tape and Reel

Can be filled up to maximum quantity indicated in the table here above, taking into account the minimum order quantity. When quantity ordered is between the MOQ and the maximum reel capacity, only one reel is provided. **When several reels are needed for ordered quantity within MOQ and maximum reel capacity: Please consult Vishay Sfernice for specific ordering code**.

Parts are packed: active face down.

OPTIONS

0057 option [1]:

Screening sequence:

- 100 % rapid change of temperature
- 100 %electrical control
- 100 % visual inspection

Note

[1] Termination B tin / lead wraparound available only

For technical questions, contact: sferthinfilm@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

GLOBAL PART NUMBER INFORMATION

Global Part Numbering: PZR02016-0R00FT

P	Z	R	0	2	0	1	6	-	0	R	0	0	F	T	0	9	9

GLOBAL MODEL	SIZE	OHMIC VALUE	TERMINATION [1]	PACKAGING	OPTION
PZR	**02016** **0402** **0603** **0805** **1206** **2010** **2512**	**0 Ω**	**C** = tin / lead (one face) **F** = tin / silver (one face) **N** = tin / silver (wraparound) **B** = tin / lead (wraparound)	For more information see Codification of Packaging table	From 1 to 3 digits, leave blank if no option

Notes

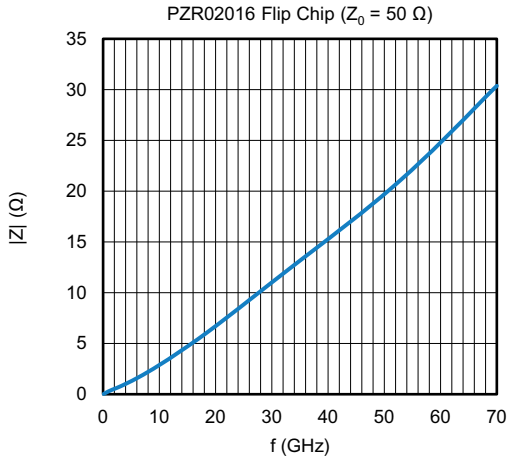
[1] PZR02016: one face termination only

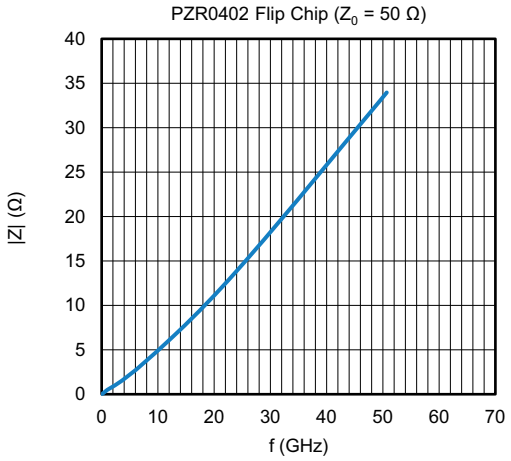
CODIFICATION OF PACKAGING

CODE 18	PACKAGING
WAFFLE PACK (Not available for 02016)	
W	100 min., 1 mult.
WA	100 min., 100 mult. (available only in size 1206)
PLASTIC TAPE (standard for all sizes)	
T	100 min., 1 mult.
TA	100 min., 100 mult.
TB	250 min., 250 mult.
TC	500 min., 500 mult.
TD	1000 min., 1000 mult.
TE	2500 min., 2500 mult.
TF	Full tape (quantity depending on size of chips)
PAPER TAPE (Available for 0402, 0603, 0805 and 1206. Please consult Vishay Sfernice for other sizes.)	
PT	100 min., 1 mult.
PA	100 min., 100 mult.
PB	250 min., 250 mult.
PC	500 min., 500 mult.
PD (not available for size 0402)	1000 min., 1000 mult.
PE (not available for size 0402)	2500 min., 2500 mult.
PF (not available for size 0402)	Full tape (quantity depending on size of chips)

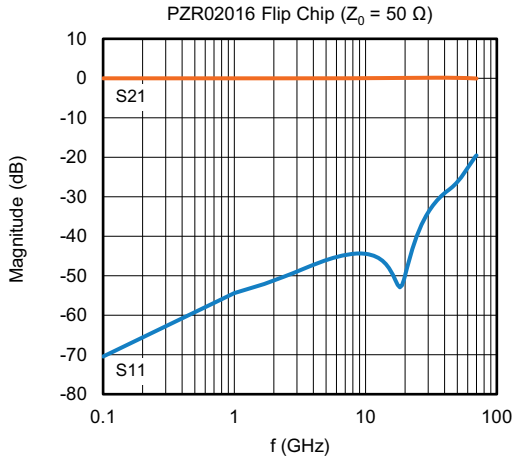
For technical questions, contact: sferthinfilm@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

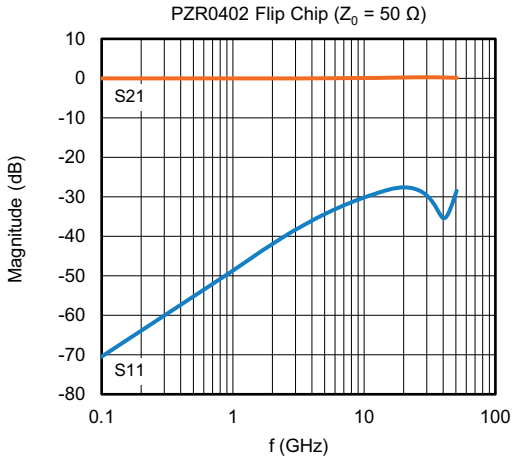
INTERNAL IMPEDANCE CURVES





S-PARAMETER





For technical questions, contact: sferthinfilm@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

© 2024 VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED