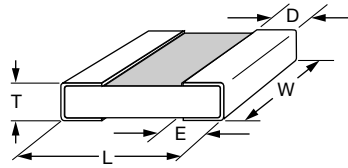


DIMENSIONS in inches


CASE SIZE	L	W	T	D	E
0402	0.042 ± 0.008	0.022 ± 0.005	0.012 to 0.033	0.010 ± 0.005	0.010 ± 0.005
0502	0.055 ± 0.006	0.025 ± 0.005	0.012 to 0.033	0.010 ± 0.005	0.015 ± 0.005
0505	0.055 ± 0.006	0.050 ± 0.005	0.012 to 0.033	0.010 ± 0.005	0.015 ± 0.005
0603	0.064 ± 0.006	0.032 ± 0.005	0.020 max.	0.012 ± 0.005	0.015 ± 0.005
0705, 0805 ⁽¹⁾	0.080 ± 0.006	0.050 ± 0.005	0.015 to 0.033	0.016 ± 0.008	0.015 ± 0.005
1005	0.105 ± 0.007	0.050 ± 0.005	0.015 to 0.033	0.015 ± 0.005	0.015 ± 0.005
1010	0.105 ± 0.007	0.100 ± 0.005	0.015 to 0.033	0.015 ± 0.005	0.015 ± 0.005
1206	0.126 ± 0.008	0.063 ± 0.005	0.015 to 0.033	0.020 ± 0.005 / - 0.010	0.020 ± 0.005 / - 0.010
1505	0.155 ± 0.007	0.050 ± 0.005	0.015 to 0.033	0.015 ± 0.005	0.015 ± 0.005
2010	0.209 ± 0.009	0.098 ± 0.005	0.015 to 0.033	0.020 ± 0.005	0.020 ± 0.005
2208	0.230 ± 0.007	0.075 ± 0.005	0.015 to 0.033	0.020 ± 0.005	0.020 ± 0.005
2512	0.259 ± 0.009	0.124 ± 0.005	0.015 to 0.033	0.020 ± 0.005	0.020 ± 0.005

Note

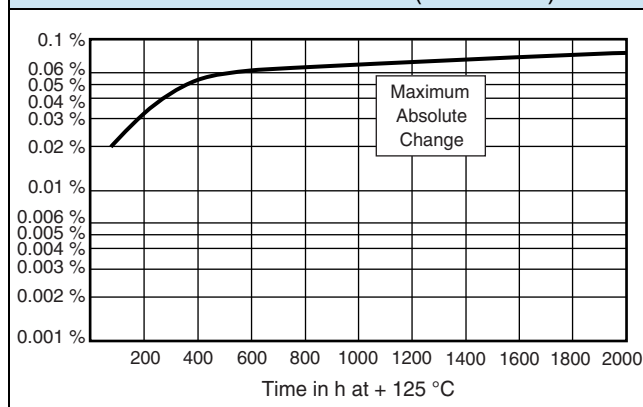
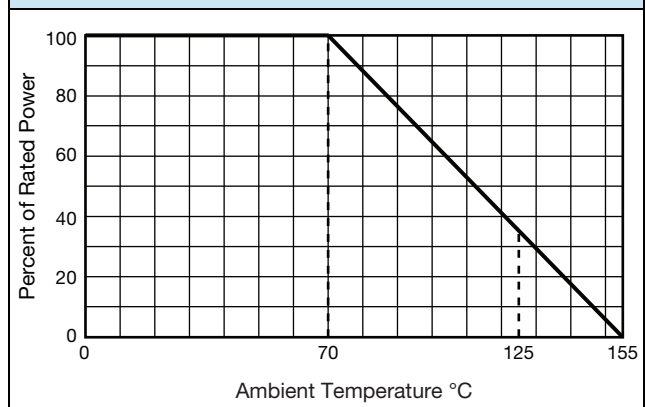
⁽¹⁾ 0705 and 0805 are the same (only use 0805 when ordering)

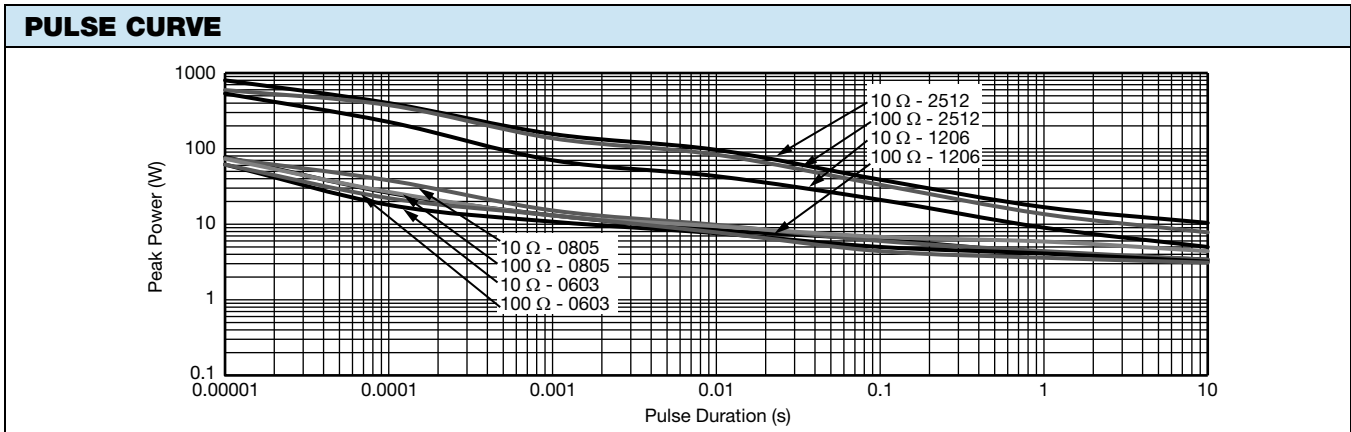
ENVIRONMENTAL TESTS (Vishay Performance vs. MIL-PRF-55342 Requirements)

ENVIRONMENTAL TEST	LIMITS MIL-PRF-55342 CHARACTERISTIC "E"	TYPICAL VISHAY PERFORMANCE
Resistance Temperature Characteristic	± 25 ppm/°C	± 15 ppm/°C
Max. Ambient Temp. at Rated Wattage	+70 °C	+70 °C
Max. Ambient Temp. at Power Derating	+150 °C	+150 °C
Thermal Shock ΔR	± 0.1 %	± 0.040 %
Low Temperature Operation ΔR	± 0.1 %	± 0.001 %
Short Time Overload ⁽¹⁾ ΔR	± 0.10 %	± 0.002 %
High Temperature Exposure ΔR	± 0.1 %	± 0.04 %
Resistance to Soldering Heat ΔR	± 0.2 %	± 0.008 %
Moisture Resistance ΔR	± 0.2 %	± 0.004 %
Life +70 °C at 1000 h ΔR	± 0.50 %	± 0.02 %
Insulation Resistance	10 000 Ω minimum	> 100 000 MΩ

Note

⁽¹⁾ 2512 short time overload test is based on 1 W power level below critical value of 20 kΩ

FILM LOAD LIFE STABILITY (at +125 °C)

DERATING CURVE




GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: **PTN1206E1002BBT1**

P	T	N	1	2	0	6	E	1	0	0	2	B	B	T	1
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

GLOBAL MODEL	CASE SIZE	TCR CHARACTERISTIC	RESISTANCE	TOLERANCE	TERMINATION	PACKAGING
PTN	0402 0502 0505 0603 0805 1005 1010 1206 1505 2208 2010 2512	D = ± 15 ppm/°C ⁽¹⁾ E = ± 25 ppm/°C ⁽²⁾ H = ± 50 ppm/°C ⁽²⁾ K = ± 100 ppm/°C L = ± 200 ppm/°C Y = ± 10 ppm/°C ⁽³⁾	The first 3 digits are significant figures and the last digit specifies the number of zeros to follow. "R" designates the decimal point. Example: 10R0 = 10 Ω 1000 = 100 Ω 1001 = 1 kΩ	A = ± 0.05 % ⁽⁴⁾ B = ± 0.1 % D = ± 0.5 % F = ± 1 % G = ± 2 % J = ± 5 %	B = wraparound Sn/Pb solder Sn63 w/nickel barrier G = wraparound Au over Ni (gold) termination epoxy bondable RoHS-compliant - e4 S = wraparound electroplated 100 % pure matte tin RoHS-compliant - e3	BS = BULK 100 min., 1 mult. WO = WAFFLE 100 min., 100 mult. WS = WAFFLE 100 min., 1 mult. WI = 100 min., 1 mult. (item single lot date code) WP = 100 min., 1 mult. (package unit single lot date code) TAPE AND REEL T0 = 100 min., 100 mult. T1 = 1000 min., 1000 mult. ⁽⁵⁾ T3 = 300 min., 300 mult. T5 = 500 min., 500 mult. TF = full reel TS = 100 min., 1 mult. TI = 100 min., 1 mult. (item single lot date code) TP = 100 min., 1 mult. (package unit single lot date code)

Historical Part Number example: PTN0805H8801BBT (for reference purposes only)

PTN	0805	H	8801	B	B	T
STYLE	CASE SIZE	TCR CHARACTERISTIC	OHMIC VALUE	TOLERANCE	TERMINATION	PACKAGING

Notes

- (1) Not available below 50 Ω
- (2) Not available below 10 Ω
- (3) Not available below 100 Ω
- (4) Only available in ≥ 1 kΩ
- (5) Preferred packaging code

RESISTANCE	TCR (ppm/°C)	TOLERANCE (%)
10 Ω to 49.9 Ω	25, 50, 100, 200	0.1, 0.5, 1, 2, 5
50 Ω to 99 Ω	15, 25, 50, 100, 200	0.1, 0.5, 1, 2, 5
100 Ω to 999 Ω	10, 15, 25, 50, 100, 200	0.1, 0.5, 1, 2, 5
1 kΩ to 3 MΩ	10, 15, 25, 50, 100, 200	0.05, 0.1, 0.5, 1, 2, 5
5 Ω to 10 Ω	100, 200	1, 2, 5
1.0 Ω to 5 Ω	200	1, 2, 5



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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

[PTN0603E4991BBT](#) [PTN0805E1000BBT](#) [PTN0805E1001BBT](#) [PTN0805E1002BBT1](#) [PTN0805E1003BBT1](#)
[PTN0805E1072BBT](#) [PTN0805E1270BBT](#) [PTN0805E1372BBT](#) [PTN0805E1402BBT](#) [PTN0805E1501BBT](#)
[PTN0805E2003BBT](#) [PTN0805E2490BBT](#) [PTN0805E2493BBT](#) [PTN0805E2872BBT](#) [PTN0805E3003BBT](#)
[PTN0805E3012BBT](#) [PTN0805E3321BBT](#) [PTN0805E3832BBT](#) [PTN0805E3921BBW](#) [PTN0805E4991BBT](#)
[PTN0805E4992BBT](#) [PTN0805E9532BBT](#) [PTN0805H1001BBT1](#) [PTN0805H1500BBT1](#) [PTN1206E1002BBT1](#)
[PTN1206E1003BBT](#) [PTN1206E1782BBT](#) [PTN1206E2001BBT1](#) [PTN1206E2492BBT](#) [PTN1206E2500BBT](#)
[PTN1206E4022BBT](#) [PTN1206E4752BBT](#) [PTN1206E4993BBT](#) [PTN1206E5171BBT](#) [PTN1206K1001FBT](#)
[PTN1206K1003FBT](#) [PTN1206K9312FBW](#) [PTN1206E4992BBT](#) [PTN1206H4993BBT](#) [PTN1005E1001BBT](#)
[PTN0805H49R9BBT](#) [PTN0805E2001BBT1](#) [PTN0805E2211BBT1](#) [PTN0805E3610BBT](#) [PTN0805E5621BBT](#)
[PTN1206E1000BBWS](#) [PTN1206E1001FBW](#) [PTN0805E2491BBT](#) [PTN1206E1620BBT](#) [PTN0805E3011BBT1](#)
[PTN1206K30R1FBW](#) [PTN0805E4990BBT](#) [PTN1206E2673BBT1](#) [PTN1206E1102BBT](#) [PTN0805E2871BBT](#)
[PTN0805E1742BBT](#) [PTN0805E1782BBT](#) [PTN0805E2102BBT](#) [PTN0805E5231BBT](#) [PTN0805E6191BBT1](#)
[PTN0805E1052BBT](#) [PTN0805E1692BBT](#) [PTN0805E1783BBT](#) [PTN0805E2182BBT](#) [PTN0805E2212BBT](#)
[PTN0805E2372BBT](#) [PTN0805E2432BBT](#) [PTN0805E2612BBT](#) [PTN0805E2802BBT](#) [PTN0805E3482BBT](#)
[PTN0805E5171BBT](#) [PTN0805E5491BBT](#) [PTN1206E4991BBT](#) [PTN1206E2002BBT1](#) [PTN1206H3013BBT](#)
[PTN0603E1002BST1](#) [PTN0805E4022BBT1](#) [PTN0805E4222BBT1](#) [PTN1206E1001BBT1](#) [PTN0805E1102BBT1](#)
[PTN0805E4422BBT1](#) [PTN2512E1004BST1](#) [PTN0805E8060BBT1](#) [PTN0805H1002BBT1](#) [PTN0603E2612BBT1](#)
[PTN1206H1002BBT1](#) [PTN0805E1241BBT1](#) [PTN1206E2741BST1](#) [PTN0805E1541BBT1](#) [PTN1206E4591BST1](#)
[PTN0603H1002BBT](#) [PTN0805E8871BBT](#) [PTN0805E2261BBT](#) [PTN0402E1000DGTS](#) [PTN0805E63R4BBT1](#)
[PTN0805E1403BBT](#) [PTN0805H3221BBT0](#) [PTN0603E1002BBT](#) [PTN0603E1502BBT](#) [PTN1206E1400BBT](#)