

Surface Mount Type

POSCAP



Series : TH

Features

- Guaranteed at 125 °C, 1000h
- RoHS compliance, Halogen free

Specifications

Size code	D2E	D2	D3L	D4
Category temperature range	-55 °C to +125 °C			
Rated voltage range	2.5 V.DC to 6.3 V.DC	2.5 V.DC to 10 V.DC	4 V.DC to 6.3 V.DC	6.3 V.DC to 10 V.DC
Category voltage range	1.6 V.DC to 4.0 V.DC	1.6 V.DC to 6.3 V.DC	2.5 V.DC to 4.0 V.DC	4.0 V.DC to 6.3 V.DC
Rated capacitance range	150 µF to 330 µF	68 µF to 220 µF	220 µF to 330 µF	220 µF to 470 µF
Capacitance tolerance	±20 % (120 Hz / + 20 °C)			
Leakage current	Please see the attached characteristics list			
Dissipation factor (tan δ)	Please see the attached characteristics list			
Surge voltage (V.DC)	Rated voltage × 1.15			
Endurance	+125 °C 1000h, category voltage applied			
	Capacitance change	Within ±20 % of the initial value		
	tan δ	≤ 2 times of the initial limit		
	DC leakage current	≤ 2 times of the initial limit		
Damp heat (Steady State)	+60 °C, 90 % to 95 %, 500 h, No-applied voltage			
	Capacitance change	Within +40 %, -20 % of the initial value		
	tan δ	≤ 1.5 times of the initial limit		
	DC leakage current	≤ 3 times of the initial limit		

Marking

D2E, D3L Size

D2, D4 Size

R. Voltage (V.DC)	2.5	4.0	6.3	10
Code	e	g	j	A

Dimensions (not to scale)

Unit : mm

Size code	L±0.3*1	W±0.2	H±0.1*2	S±0.2	W1±0.1
D2E	7.3	4.3	1.8	1.3	2.4
D2	7.3	4.3	1.9	1.3	2.4
D3L	7.3	4.3	2.8	1.3	2.4
D4	7.3	4.3	3.8	1.3	2.4

* Externals of figure are the reference. * 1 ±0.2 : D2 * 2 ±0.2 : D3L, D4

Characteristics list

Series	Rated voltage (V.DC)	Rated temp. (°C)	Category voltage (V.DC)	Category temp. (°C)	Rated capacitance (µF)	Case size (mm)			Size code	Specifications				Standard		Floor life									
						L	W	H		Ripple*1 current (mA r.m.s.)	ESR*2 (mΩ max.)	tan δ*3	LC*4 (µA)	Part number	Min. Packaging Qty (pcs)	Reflow Temp ≤260°C	Reflow Temp ≤250°C								
THB	4.0	105	2.5	125	330	7.3	4.3	2.8	D3L	2000	40	0.10	132.0	4THB330ML	2500	-	5								
										2000	40	0.10	138.6	6THB220ML	2500										
	6.3	105	4.0	125	330	7.3	4.3	3.8		D4	3000	40	0.10	207.9	6THB330M			2000							
											3000	35	0.10	296.1	6THB470M			2000							
	10	105	6.3	125	220	7.3	4.3	3.8			D2	3000	40	0.10	220.0			10THB220M	2000						
												3000	35	0.10	330.0			10THB330M	2000						
THC	2.5	105	1.6	125	220	7.3	4.3	1.9	D2			1700	45	0.10	55.0			2R5THC220M	3000						
												1900	40	0.10	94.5			6THC150M	3000						
										1700		45	0.10	68.0	10THC68M			3000							
THE	2.5	105	1.6	125	330	7.3	4.3	1.8	D2E	3100		15	0.10	82.5	2R5THE330MF			3000							
										2800	18	0.10	82.5	2R5THE330MI	3000										
										2400	25	0.10	82.5	2R5THE330M	3000										
										3100	15	0.10	88.0	4THE220MF	3000										
										2800	18	0.10	88.0	4THE220MI	3000										
										2400	25	0.10	88.0	4THE220M	3000										
	4.0	105	2.5	125	220	7.3	4.3	1.8		D2E	2800	18	0.10	94.5	6THE150MI	3000									
											2800	18	0.10	94.5	6THE150M	3000									
											2400	25	0.10	94.5	6THE150MI	3000									
											2400	25	0.10	94.5	6THE150M	3000									
											6.3	105	4.0	125	150	7.3	4.3	1.8	D2E	2400	25	0.10	94.5	6THE150M	3000
																				2400	25	0.10	94.5	6THE150M	3000

*1 Ripple current (100 kHz/ +45 °C), *2 ESR (100 kHz/+20 °C) *3 tan δ (120 Hz/+20 °C) *4 After 5 minutes
 ♦ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".

Guidelines and precautions regarding the technical information and use of our products described in this online catalog.

- If you want to use our products described in this online catalog for applications requiring special qualities or reliability, or for applications where the failure or malfunction of the products may directly jeopardize human life or potentially cause personal injury (e.g. aircraft and aerospace equipment, traffic and transportation equipment, combustion equipment, medical equipment, accident prevention, anti-crime equipment, and/or safety equipment), it is necessary to verify whether the specifications of our products fit to such applications. Please ensure that you will ask and check with our inquiry desk as to whether the specifications of our products fit to such applications use before you use our products.
- The quality and performance of our products as described in this online catalog only apply to our products when used in isolation. Therefore, please ensure you evaluate and verify our products under the specific circumstances in which our products are assembled in your own products and in which our products will actually be used.
- If you use our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you set up protection circuits and redundancy circuits in order to ensure safety of your equipment.
- The products and product specifications described in this online catalog are subject to change for improvement without prior notice. Therefore, please be sure to request and confirm the latest product specifications which explain the specifications of our products in detail, before you finalize the design of your applications, purchase, or use our products.
- The technical information in this online catalog provides examples of our products' typical operations and application circuits. We do not guarantee the non-infringement of third party's intellectual property rights and we do not grant any license, right, or interest in our intellectual property.
- If any of our products, product specifications and/or technical information in this online catalog is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially with regard to security and export control, shall be observed.



<Regarding the Certificate of Compliance with the EU RoHS Directive/REACH Regulations>

- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

We do not take any responsibility for the use of our products outside the scope of the specifications, descriptions, guidelines and precautions described in this online catalog.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View 10THB220M on WIN SOURCE](#)
-  [Panasonic Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management