



钽电容器

CONTENTS

钽电容器

■新背面电极结构 (超大容量) 型 : TCS系列 P. D22

M规格: 1608-10 (0603)尺寸

PS规格: 2012-09 (0805)超薄型尺寸

P规格: 2012-12 (0805)尺寸

■背面电极结构 (大容量) 型 : TCT、TC系列 P. D23

U规格: 1005-055 (0402)尺寸 P. D23

ML规格: 1608-06 (0603)薄型尺寸 P. D23

M规格: 1608-09 (0603)尺寸 P. D23

PL规格: 2012-10 (0805)薄型尺寸 P. D24

P规格: 2012-12 (0805)尺寸 P. D24

AS规格: 3216-10 (1206)超薄型尺寸 P. D24

AL规格: 3216-12 (1206)薄型尺寸 P. D24

■标准型 : TC系列 P. D25

P规格: 2012-12 (0805)尺寸

A规格: 3216-18 (1206)尺寸

导电性高分子电容器

■新背面电极结构 (超大容量) 型 : TCSO系列 P. D26

M规格: 1608-10 (0603)尺寸

PS规格: 2012-09 (0805)超薄型尺寸

PL规格: 2012-10 (0805)薄型尺寸

P规格: 2012-12 (0805)尺寸

■背面电极结构 (大容量) 型 : TCTO系列 P. D27

U2规格: 1005-064 (0402)尺寸 P. D27

M规格: 1608-09 (0603)尺寸 P. D27

PL规格: 2012-10 (0805)薄型尺寸 P. D27

P规格: 2012-12 (0805)尺寸 P. D27

AS规格: 3216-10 (1206)超薄型尺寸 P. D28

AL规格: 3216-12 (1206)薄型尺寸 P. D28

A规格: 3216-18 (1206)尺寸 P. D28

BL规格: 3528-12 (1411)薄型尺寸 P. D28

■标准型 : TCO系列 P. D29

B规格: 3528-21 (1411)尺寸

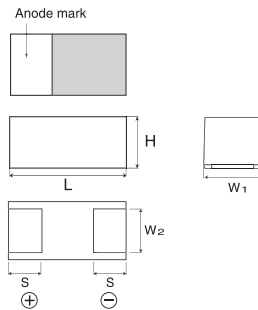
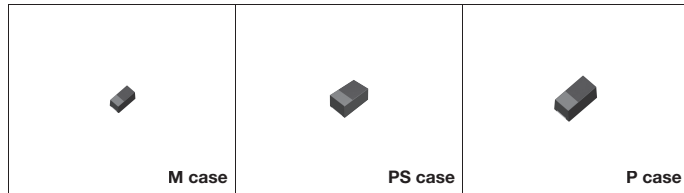
新背面电极结构 (超大容量) 型 : TCS系列

■ M规格 1608-10 (0603)尺寸

■ PS规格 2012-09 (0805)超薄型尺寸

■ P规格 2012-12 (0805)尺寸

■ 尺寸



(单位: mm)

Dimensions	Size		
	M case	PS case	P case
L	1.6+0.2/-0	2.0±0.2	2.0±0.2
W ¹	0.85±0.1	1.25±0.2	1.25±0.2
W ²	0.55±0.1	0.85±0.2	0.85±0.2
H	0.8+0.2/-0	0.9Max.	1.2Max.
S	0.5±0.1	0.5±0.1	0.5±0.1

Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TCS Series	M case 1608-10 (0603) size	±20% (M)	−55°C to +125°C Rated Voltage at −55°C to +85°C DeRated Voltage at +85°C to +125°C	Max. 40% at 120Hz (25°C) [※]	Max 0.2 CV (25°C,5Min.) [※]	Max. 6.0Ω (at 100kHz) [※]
	PS case 2012-09 (0805) Ultra Low profile size				Max 0.1 CV (25°C,5Min.) [※]	
	P case 2012-12 (0805) size					

※规格值会因部件编号不同而有所区别

■ 电容范围

● M规格 1608-10 (0603) 尺寸

Capacitance (μF)	Rated Voltage (V.DC)			
	4	6.3	10	16
10 (106)				M
22 (226)			M	
47 (476)		M		
100 (107)	M			

● PS规格 2012-09 (0805) 超薄型尺寸

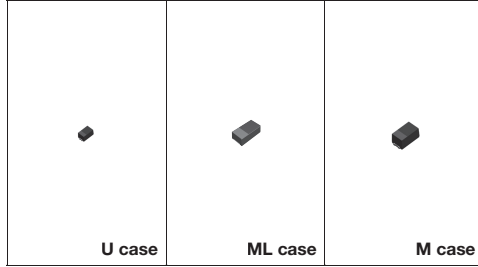
Capacitance (μF)	Rated Voltage (V.DC)			
	4	6.3	10	16
22 (226)				
47 (476)			PS	
100 (107)				
220 (227)				

● P规格 2012-12 (0805) 尺寸

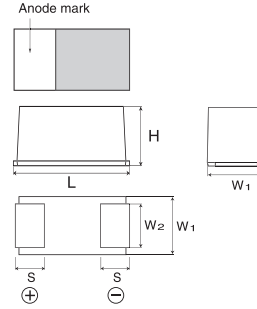
Capacitance (μF)	Rated Voltage (V.DC)			
	4	6.3	10	20
10 (106)				P
47 (476)			P	
100 (107)		P		
150 (157)		P		
220 (227)	P			

背面电极结构 (大容量) 型 : TCT、TC系列

- U规格 1005-055 (0402)尺寸
- ML规格 1608-06 (0603)薄型尺寸
- M规格 1608-09 (0603)尺寸



■ 尺寸



(单位: mm)

Dimensions	Size		
	U case	ML case	M case
L	1.0+0.2/-0	1.6±0.1	1.6±0.1
W ¹	0.5+0.2/-0	0.85±0.1	0.85±0.1
W ²	0.35±0.1	0.55±0.1	0.55±0.1
H	0.55Max.	0.55±0.1	0.8±0.1
S	0.35±0.1	0.5±0.1	0.5±0.1

Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TCT Series	U case 1005-055 (0402) size	±10% (K) ±20% (M)	-55°C to +125°C Rated Voltage at -55°C to +85°C DeRated Voltage at +85°C to +125°C	Max.50% at 120Hz (25°C)*	0.5μA or 0.1 CV whichever is greater (25°C,5Min.)*	Max. 35Ω (at 100kHz)*
	ML case 1608-06 (0603) Low profile size	±20% (M)		Max.30% at 120Hz (25°C)*		Max. 15.0Ω (at 100kHz)*
TC Series	M case 1608-09 (0603) size				0.5μA or 0.01 CV whichever is greater (25°C,5Min.)*	

※规格值会因部件编号不同而有所区别

■ 电容范围

● U规格1005-055 (0402)尺寸

Capacitance (μF)	Rated Voltage (V.DC)					
	2.5	4	6.3	10	16	20
0.33 (334)						U
0.47 (474)			U			
1 (105)			U			
2.2 (225)			U			
4.7 (475)		U	U			
10 (106)						
15 (156)	U					

● ML规格1608-06 (0603)尺寸

Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	20	25
1 (105)						ML
2.2 (225)						
4.7 (475)						
10 (106)						
22 (226)						

● M规格1608-09 (0603)尺寸

Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	20	25
1 (105)				M		M
2.2 (225)			M	M		
4.7 (475)		M	M			
10 (106)	M	M	M			
22 (226)	M	M				
33 (336)	☆M	M				

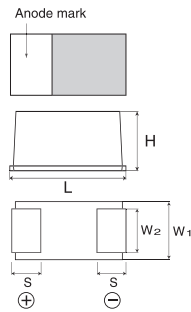
☆: 开发中

*使用注意事项: 依据JEITA技术报告 "EIAJ RCR-2368A"

背面电极结构 (大容量) 型 : TCT系列

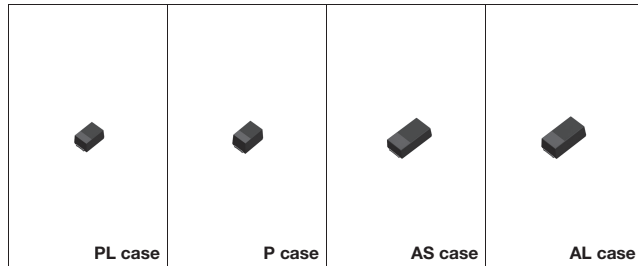
- PL规格2012-10 (0805)薄型尺寸
 ■P规格2012-12 (0805)尺寸
 ■AS规格3216-10 (1206)超薄型尺寸
 ■AL规格3216-12 (1206)薄型尺寸

■尺寸



(单位: mm)

Dimensions	Size			
	PL case	P case	AS case	AL case
L	2.0±0.2	2.0±0.2	3.2±0.2	3.2±0.2
W ¹	1.25±0.2	1.25±0.2	1.6±0.2	1.6±0.2
W ²	0.85±0.2	0.85±0.2	1.2±0.2	1.2±0.2
H	0.9±0.1	1.2 Max.	0.9±0.1	1.1±0.1
S	0.5±0.2	0.5±0.2	0.8±0.2	0.8±0.2



Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TCT Series	PL case 2012-10 (0805) Low profile size	±20% (M)	-55°C to +125°C Rated Voltage at -55°C to +85°C DeRated Voltage at +85°C to +125°C	Max.30% at 120Hz (25°C)*	Max. 0.05 CV (25°C,5Min.)*	Max. 8.0Ω (at 100kHz)*
	P case 2012-12 (0805) size					
	AS case 3216-10 (1206) Ultra Low profile size					
	AL case 3216-12 (1206) Low profile size					

※规格值会因部件编号不同而有所区别

■电容范围

- PL规格2012-10 (0805)薄型尺寸 ●P规格2012-12 (0805)尺寸

Capacitance (μF)	Rated Voltage (V.DC)			
	4	6.3	10	16
1 (105)				
2.2 (225)				
4.7 (475)				
10 (106)				PL
22 (226)			PL	
47 (476)		PL		
100 (107)	PL			

Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	20	25
2.2 (225)						P
4.7 (475)						
10 (106)				P		
22 (226)			P			
33 (336)			P			
47 (476)	P	P	☆P			
100 (107)	☆P					

☆: 开发中

- AS规格3216-10 (1206)超薄型尺寸

Capacitance (μF)	Rated Voltage (V.DC)						
	4	6.3	10	16	20	25	35
1 (105)							AS
2.2 (225)							
4.7 (475)							
10 (106)							
22 (226)							
47 (476)		AS	AS				
100 (107)		AS					
220 (227)	AS						

- AL规格3216-12 (1206)薄型尺寸

Capacitance (μF)	Rated Voltage (V.DC)						
	4	6.3	10	16	20	25	35
3.3 (335)							AL
4.7 (475)						AL	
10 (106)					AL		
22 (226)				AL	AL		
33 (336)				AL			
47 (476)			AL				
100 (107)		AL	☆AL				
150 (157)		AL					
220 (227)	AL	☆AL					

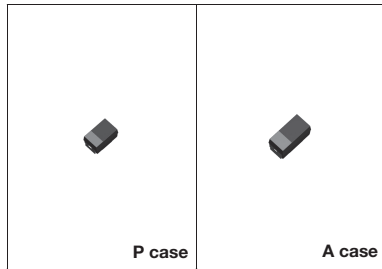
☆: 开发中

*使用注意事项: 依据JEITA技术报告 "EIAJ RCR-2368A"

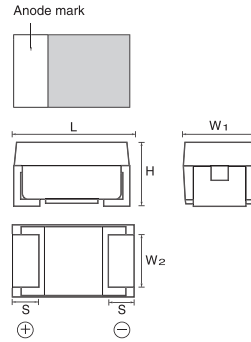
标准型：TC系列

■ P规格2012-12 (0805)尺寸

■ A规格3216-18 (1206)尺寸



■ 尺寸



(单位：mm)

Dimensions	Size	
	P case	A case
L	2.0±0.2	3.2±0.2
W ¹	1.25±0.2	1.6±0.2
W ²	0.9±0.2	1.2±0.2
H	1.2 Max.	1.6±0.2
S	0.45±0.3	0.8±0.3

Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TC Series	P case 2012-12 (0805) size	±20% (M)	-55°C to +125°C Rated Voltage at -55°C to +85°C DeRated Voltage at +85°C to +125°C	Max.25% at 120Hz (25°C)*	0.5μA or 0.01 CV whichever is greater (25°C,1Min.)*	Max. 17.5Ω (at 100kHz)*
	A case 3216-18 (1206) size			Max.30% at 120Hz (25°C)*		Max. 8.8Ω (at 100kHz)*

※规格值会因部件编号不同而有所区别

■ 电容范围

● P规格2012-12 (0805)尺寸

Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	20	25
1 (105)			P	P		P
2.2 (225)		P	P			
4.7 (475)		P	P			
10 (106)	P		P			
22 (226)	P	P				

● A规格3216-18 (1206)尺寸

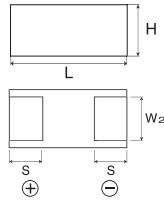
Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	20	25
1 (105)					A	A
4.7 (475)				A	A	A
10 (106)			A	A		
22 (226)			A			
47 (476)		A				
100 (107)	A					

导电性高分子 新背面电极结构 (超大容量) 型 : TCSO系列

- M规格1608-10 (0603)尺寸
■ PS规格2012-09 (0805)超薄型尺寸
■ PL规格2012-10 (0805)薄型尺寸
■ P规格2012-12 (0805)尺寸

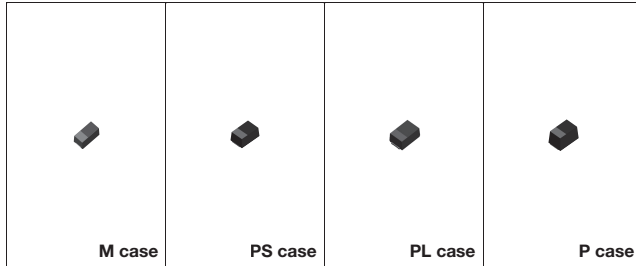
■ 尺寸

Anode mark



(单位: mm)

Dimensions	Size			
	M case	PS case	PL case	P case
L	1.6+0.2/-0	2.0±0.2	2.0±0.2	2.0±0.2
W ¹	0.85±0.1	1.25±0.2	1.25±0.2	1.25±0.2
W ²	0.55±0.1	0.85±0.2	0.85±0.2	0.85±0.2
H	0.8+0.2/-0	0.8±0.1	0.9±0.1	Max. 1.2
S	0.5±0.1	0.5±0.1	0.5±0.1	0.5±0.1



Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TCSO Series	M case 1608-10 (0603) size	±20% (M)	-55°C to +105°C Rated Voltage at -55°C to +85°C DeRated Voltage at +85°C to +105°C	Max. 15% at 120Hz (25°C)*	Max. 0.1 CV (25°C, 5Min.)	Max. 300mΩ (at 100kHz)*
	PS case 2012-09 (0805) Ultra Low profile size					Max. 200mΩ (at 100kHz)*
	PL case 2012-10 (0805) Low profile size					Max. 200mΩ (at 100kHz)*
	P case 2012-12 (0805) size					Max. 400mΩ (at 100kHz)*

※规格值会因部件编号不同而有所区别

■ 电容范围

● M规格1608-10 (0603)尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	2.5	4	6.3	10
10 (106)				☆300
22 (226)			300	
47 (476)			☆300	

☆: 开发中

● PS规格2012-09 (0805)超薄型尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)		
	4	6.3	10
10 (106)			
22 (226)			
47 (476)		150/200	
100 (107)			

● PL规格2012-10 (0805)薄型尺寸

(ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	20	25
4.7 (475)						☆200
10 (106)						
22 (226)			200			
33 (336)			☆200			
47 (476)		150/200				
68 (686)		☆150/☆200				

☆: 开发中

● P规格2012-12 (0805)尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	4	6.3	10	16
10 (106)				
22 (226)				☆400
47 (476)			☆200	
100 (107)				

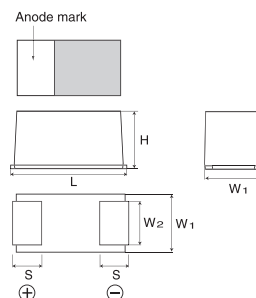
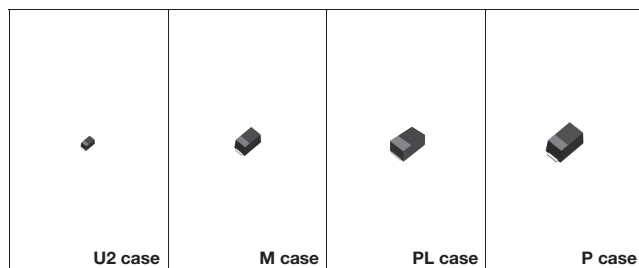
☆: 开发中

*使用注意事项: 依据JEITA技术报告 "EIAJ RCR-2368A"

导电性高分子 背面电极结构 (大容量) 型 : TCTO系列

- U2规格1005-064 (0402)尺寸
- M规格1608-09 (0603)尺寸
- PL规格2012-10 (0805)薄型尺寸
- P规格2012-12 (0805)尺寸

■ 尺寸



(单位: mm)

Dimensions	Size			
	U2 case	M case	PL case	P case
L	1.0+0.3/-0	1.6±0.1	2.0±0.2	2.0±0.2
W ¹	0.5+0.2/-0	0.85±0.1	1.25±0.2	1.25±0.2
W ²	0.35±0.1	0.55±0.1	0.85±0.2	0.85±0.2
H	0.64 Max.	0.8±0.1	0.9±0.1	1.2 Max.
S	0.35±0.1	0.5±0.1	0.5±0.2	0.5±0.2

Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TCTO Series	U2 case 1005-064 (0402) size	±20% (M)	-55°C to +105°C Rated Voltage at -55°C to +85°C DeRated Voltage at +85°C to +105°C	Max.30% at 120Hz (25°C)*	3μA or 0.1CV whichever is greater (25°C,5Min.)	Max. 700mΩ (at 100kHz)*
	M case 1608-09 (0603) size			Max.8% at 120Hz (25°C)*	Max. 0.1 CV (25°C, 5Min.)	Max. 500mΩ (at 100kHz)*
	PL case 2012-10 (0805) Low profile size			Max.15% at 120Hz (25°C)*	3μA or 0.1CV whichever is greater (25°C,5Min.)	Max. 300mΩ (at 100kHz)*
	P case 2012-12 (0805) size					

※规格值会因部件编号不同而有所区别

■ 电容范围

● U2规格1005-064 (0402)尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	2.5	4	6.3	10
0.47 (474)				
1 (105)				
2.2 (225)				
4.7 (475)			☆700	

☆: 开发中

● M规格1608-09 (0603)尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	2.5	4	6.3	10
2.2 (225)				500
3.3 (335)				500
4.7 (475)				500
10 (106)			500	

● PL规格2012-10 (0805)薄型尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	2.5	4	6.3	10
10 (106)			☆300	
22 (226)			☆300	
47 (476)				
100 (107)				

☆: 开发中

● P规格2012-12 (0805)尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	2.5	4	6.3	10
10 (106)				300
22 (226)				☆300
47 (476)		300		
100 (107)				

☆: 开发中

*使用注意事项: 依据JEITA技术报告 "EIAJ RCR-2368A"

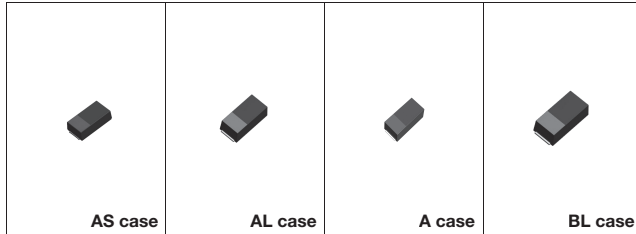
导电性高分子 背面电极结构 (大容量) 型 : TCTO系列

■ AS规格3216-10 (1206)超薄型尺寸

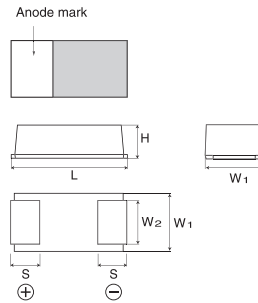
■ AL规格3216-12 (1206)薄型尺寸

■ A规格3216-18 (1206)尺寸

■ BL规格3528-12 (1411)薄型尺寸



■ 尺寸



(单位: mm)

Dimensions	Size			
	AS case	AL case	A case	BL case
L	3.2±0.2	3.2±0.2	3.2±0.2	3.5±0.2
W ¹	1.6±0.2	1.6±0.2	1.6±0.2	2.8±0.2
W ²	1.2±0.2	1.2±0.2	1.2±0.2	2.0±0.2
H	0.9±0.1	1.1±0.1	1.6±0.2	1.1±0.1
S	0.8±0.2	0.8±0.2	0.8±0.2	0.8±0.2

Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR	
TCTO Series	AS case 3216-10 (1206) Ultra Low profile size	±20% (M)	-55°C to +105°C Rated Voltage at -55°C to +85°C DeRated Voltage at +85°C to +105°C	Max.10% at 120Hz (25°C)*	3μA or 0.1CV whichever is greater (25°C,5Min.)	Max. 400mΩ (at 100kHz)*	
	AL case 3216-12 (1206) Low profile size				Max.15% at 120Hz (25°C)*	Max. 0.1 CV (25°C, 5Min.)	Max. 150mΩ (at 100kHz)*
	A case 3216-18 (1206) size						
	BL case 3528-12 (1411) Low profile size						

※规格值会因部件编号不同而有所区别

■ 电容范围

● AS规格3216-10 (1206)超薄型尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V.DC)			
	4	6.3	10	16
22 (226)				
47 (476)		200	☆100/☆200	
100 (107)		☆70		

☆: 开发中

● AL规格3216-12 (1206)薄型尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V)				
	4	6.3	10	16	20
22 (226)			200	☆400	☆400
33 (336)			200		
47 (476)		70/200			
100 (107)	200	70/200			

☆: 开发中

● A规格3216-18 (1206)尺寸 (ESR: mΩ)

Capacitance (μF)	Rated Voltage (V)			
	2.5	6.3	10	16
10 (106)				☆200
47 (476)			200	
100 (107)		35/45/70		
150 (157)		35/200		
220 (227)	35			
330 (337)	☆35/☆200			

☆: 开发中

● BL规格3528-12 (1411)薄型尺寸

(ESR: mΩ)

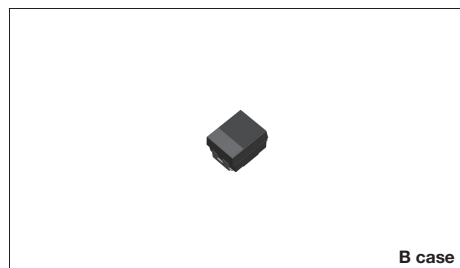
Capacitance (μF)	Rated Voltage (V.DC)					
	4	6.3	10	16	25	35
6.8 (685)						☆150
10 (106)					☆100	☆100
15 (156)					☆100	
22 (226)					☆100	
33 (336)				☆70		
47 (476)			☆70	☆70		
100 (107)		☆25/☆35				
150 (157)		☆25/☆35				
220 (227)		☆25/☆35				

☆: 开发中

*使用注意事项: 依据JEITA技术报告 "EIAJ RCR-2368A"

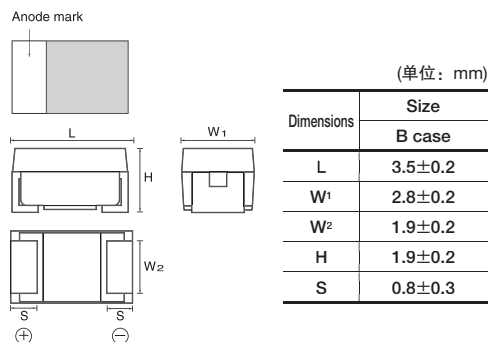
导电性高分子 标准型 : TCO系列

■ B规格3528-21 (1411)尺寸



B case

■ 尺寸



Series name	Case Name	Capacitance Tolerance	Operating Temperature Range	Tangent of Loss Angle	Leakage Current	ESR
TCO Series	B case 3528-21 (1411) size	±20% (M)	−55°C to +105°C Rated Voltage at −55°C to +85°C DeRated Voltage at +85°C to +105°C	Max.15% at 120Hz (25°C)*	Less than 0.1 CV (25°C, 5Min.)	Max. 150mΩ (at 100kHz)*

※规格值会因部件编号不同而有所区别

■ 电容范围

● B规格3528-21 (1411)尺寸

(ESR : mΩ)

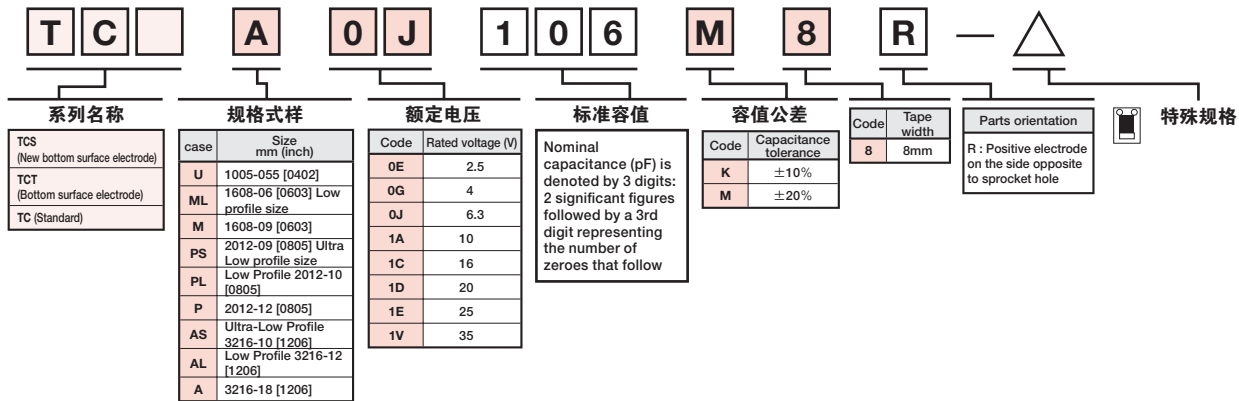
Capacitance (μF)	Rated Voltage (V.DC)					
	2.5	4	6.3	10	16	25
15 (156)						☆100
33 (336)				150	☆100	
47 (476)			70/150	150		
100 (107)			35/45/150			
150 (157)			35/45/150			
220 (227)	35		35/45/150			
330 (337)	35/45					

☆ : 开发中

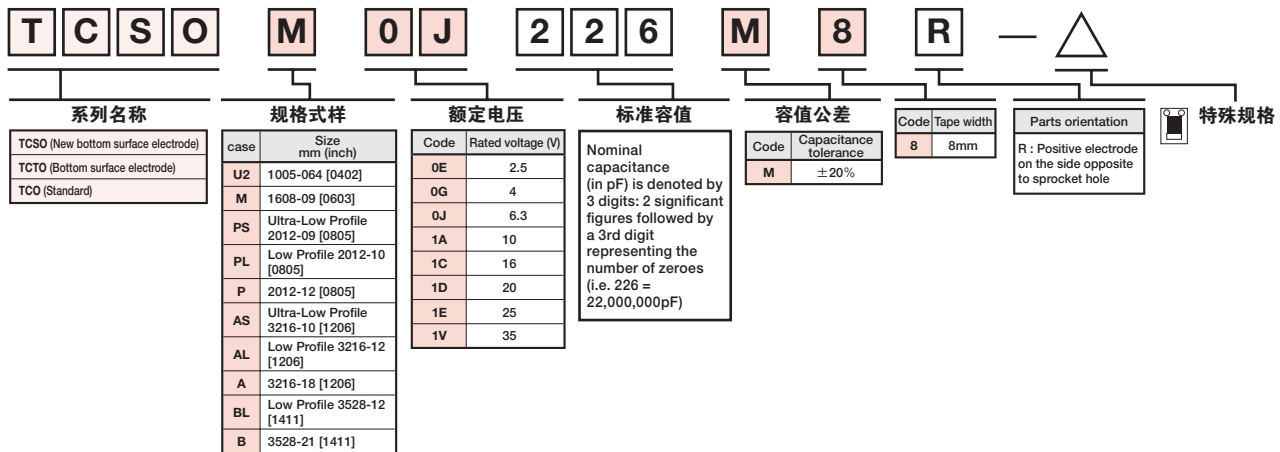
*使用注意事项: 依据JEITA技术报告 "EIAJ RCR-2368A"

● 品名构成说明

■ 钽电容器



■ 导电性高分子电容器



● 包装数量

■ 钽电容器

Case (mm[inch])	Series	Package Quantity (pcs)
U (1005-055 [0402])	TCT	10,000
ML (1608-06 [0603] Low profile size)	TCT	5,000
M (1608-09 [0603])	TC	4,000
M (1608-10 [0603])	TCS	3,000
PS (2012-09 [0805] Ultra Low profile size)	TCS	
PL (Low Profile 2012-10 [0805])	TCT	
P (2012-12 [0805])	TCS/TCT/TC	
AS (Ultra-Low Profile 3216-10 [1206])	TCT	
AL (Low Profile 3216-12 [1206])	TCT	2,000
A (3216-18 [1206])	TC	

■ 导电性高分子电容器

Case (mm[inch])	Series	Package Quantity (pcs)
U2 (1005-064 [0402])	TCTO	10,000
M (1608-09 [0603])	TCSO	4,000
PS (Ultra-Low Profile 2012-10 [0805])	TCSO/TCTO	3,000
PL (Low Profile 2012-10 [0805])		
P (2012-12 [0805])		
AS (Ultra-Low Profile 3216-10 [1206])	TCTO	2,000
AL (Low Profile 3216-12 [1206])		
A (3216-18 [1206])		
BL (Low Profile 3528-12 [1411])	TCO	3,000
B (3528-21 [1411])		2,000