

Type TYOH Organic Conductive Polymer Series

Key Features

- Mullite Coated
- Up to 2500W Power Rating
- Corrugated Ribbon Element for Rapid Cooling
- 3x Overload for 5 Seconds
- Custom Terminations / Leads Available
- Flameproof Construction

Applications

- Large Electrical and Production Machinery
- Load Test Simulation
- Motor Start/Stop Cycles
- Dynamic Braking
- Equipment Discharge



TE Connectivity's vertical chip-type aluminum electrolytic capacitors are designed for surface mounting in high density PCB population.

Supplied on tape and reel for use with automatic placement equipment.

The TYOH series are constructed from an Organic Conductive Polymer electrolyte. This offers ultra-low ESR and high ripple current handling capability over a wide operating temperature range (-55°C to +105°C). Designed for use in high frequency applications e.g. noise limiting circuits, switch mode power supplies, where high reliability is required under extreme conditions.

Characteristics - Electrical

		Test Conditions JIS C5101-1,-18										
Operating Temp. Range	-55°C ~ +105°C	—										
Rated Voltage	DC 2.5 ~ 25V	105°C										
Capacitance	6.8 ~ 1500µF	105°C										
Capacitance Tolerance	±20%	120Hz, 20°C										
Leakage Current	See Standard Product Table	C = rated capacitance (µF) V = rated DC working voltage (V) Temperature = 20°C										
Dissipation Factor (Tanδ)	See Standard Product Table	120Hz, 20°C										
ESR	See Standard Product Table	100kHz to 300kHz, 20°C										
Load Life Test	<table border="1"> <tr> <td>Test Time</td> <td>1000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	Test Time	1000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 150% of specified value	ESR	Less than 150% of specified value	Leakage Current	Within specified value	Specification satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hrs at 105°C
Test Time	1000 Hrs											
Capacitance Change	Within ±20% of initial value											
Dissipation Factor	Less than 150% of specified value											
ESR	Less than 150% of specified value											
Leakage Current	Within specified value											
Moisture Resistance	<table border="1"> <tr> <td>Test Time</td> <td>2000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	Test Time	2000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 150% of specified value	Leakage Current	Within specified value	Store at 60°C, 90 to 95% R.H. Leakage current should be tested after voltage treatment		
Test Time	2000 Hrs											
Capacitance Change	Within ±20% of initial value											
Dissipation Factor	Less than 150% of specified value											
Leakage Current	Within specified value											

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Product Availability Chart

Capacitance		Rated Voltage (V.DC)						
		2.5	4.0	6.3	10	16	20	25
μ F	Code	Dia x L	Dia x L	Dia x L	Dia x L	Dia x L	Dia x L	Dia x L
6.8	685							6.3 x 6
10	106							6.3 x 6
22	226						6.3 x 6	
33	336							8 x 12
47	476					6.3 x 6	8 x 7	
56	566				6.3 x 6			10 x 12.7
82	826			6.3 x 6		8 x 7	10 x 8	
100	107			6.3 x 6			8 x 12	
							10 x 10	
120	127			6.3 x 7				
150	157		6.3 x 6	6.3 x 7	8 x 7		10 x 12.7	
				8 x 7				
180	187					8 x 12		
						10 x 8		
220	227	6.3 x 6	8 x 7	6.3 x 7		10 x 10		
				8 x 7				
330	337		8 x 7	10 x 8	8 x 12	10 x 12.7		
					10 x 8			
470	477		10 x 8	8 x 12	10 x 10			
				10 x 8				
560	567	8 x 7	8 x 12	10 x 10	10 x 12.7			
680	687	8 x 12	10 x 8					
820	827		10 x 10	10 x 12.7				
1000	108	10 x 8						
1200	128	10 x 10	10 x 12.7					
1500	158	10 x 12.7						

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Standard Product Table

Rated Voltage V.DC	Capacitance		Case Size Dia x L	Case Code	Dissipation Factor (%)*	DC Leakage Current (μA)*	ESR (mΩ)*	Ripple Current (mA)*	Part Number
	μF	Code							
2.5	220	227	6.3x6	F62	12	110	25	2500	TYOH0E227F62MTR
2.5	560	567	8x7	G72	12	280	23	3100	TYOH0E567G72MTR
2.5	680	687	8x12	G12	18	340	12	4770	TYOH0E687G12MTR
2.5	1000	108	10x8	H82	12	500	20	3800	TYOH0E108H82MTR
2.5	1200	128	10x10	H10	18	750	13	5200	TYOH0E128H10MTR
2.5	1500	158	10x12.7	H13	18	500	10	5500	TYOH0E158H13MTR
4.0	150	157	6.3x6	F62	12	120	26	2450	TYOH0G157F62MTR
4.0	220	227	8x7	G72	12	176	25	3020	TYOH0G227G72MTR
4.0	330	337	8x7	G72	12	264	25	3020	TYOH0G337G72MTR
4.0	470	477	10x8	H82	12	376	22	3800	TYOH0G477H82MTR
4.0	560	567	8x12	G12	18	448	12	4770	TYOH0G567G12MTR
4.0	680	687	10x8	H82	12	544	22	3800	TYOH0G687H82MTR
4.0	820	827	10x10	H10	18	656	13	5200	TYOH0G827H10MTR
4.0	1200	128	10x12.7	H13	18	960	10	5500	TYOH0G128H13MTR
6.3	82	826	6.3x6	F62	12	103	27	2400	TYOH0J826F62MTR
6.3	100	107	6.3x6	F62	12	126	27	2400	TYOH0J107F62MTR
6.3	120	127	6.3x7	F72	12	151	30	2010	TYOH0J127F72MTR
6.3	150	157	6.3x7	F72	12	189	30	2250	TYOH0J157F72MTR
6.3	150	157	8x7	G72	12	189	25	3020	TYOH0J157G72MTR
6.3	220	227	6.3x7	F72	12	277	45	2320	TYOH0J227F72MTR
6.3	220	227	8x7	G72	12	277	25	3020	TYOH0J227G72MTR
6.3	330	337	10x8	H82	12	416	22	3500	TYOH0J337H82MTR
6.3	470	477	8x12	G12	15	592	12	4770	TYOH0J477G12MTR
6.3	470	477	10x8	H82	12	592	22	3500	TYOH0J477H82MTR
6.3	560	567	10x10	H10	15	706	16	4700	TYOH0J567H10MTR
6.3	820	827	10x12.7	H13	15	1033	10	5500	TYOH0J827H13MTR
10	56	566	6.3x6	F62	10	112	31	2250	TYOH1A566F62MTR
10	150	157	8x7	G72	10	300	27	2800	TYOH1A157G72MTR
10	330	337	8x12	G12	15	660	14	4420	TYOH1A337G12MTR
10	330	337	10x8	H82	10	660	25	3200	TYOH1A337H82MTR
10	470	477	10x10	H10	15	940	18	4400	TYOH1A477H10MTR
10	560	567	10x12.7	H13	15	1360	12	5300	TYOH1A567H13MTR
16	47	476	6.3x6	F62	10	150	50	1650	TYOH1C476F62MTR
16	82	826	8x7	G72	10	262	30	2700	TYOH1C826G72MTR
16	180	187	8x12	G12	15	576	16	4360	TYOH1C187G12MTR
16	180	187	10x8	H82	10	576	33	3000	TYOH1C187H82MTR
16	220	227	10x10	H10	15	704	20	4200	TYOH1C227H10MTR
16	330	337	10x12.7	H13	15	1056	14	5050	TYOH1C337H13MTR
20	22	226	6.3x6	F62	10	88	50	1650	TYOH1D226F62MTR
20	47	476	8x7	G72	10	188	45	2000	TYOH1D476G72MTR
20	82	826	10x8	H82	10	328	40	2500	TYOH1D826H82MTR
20	100	107	8x12	G12	15	400	24	3320	TYOH1D107G12MTR
20	100	107	10x10	H10	15	400	25	3700	TYOH1D107H10MTR
20	150	157	10x12.7	H13	15	608	20	4320	TYOH1D157H13MTR
25	6.8	685	6.3x6	F62	10	170	80	1200	TYOH1E685F62MTR
25	10	106	6.3x6	F62	12	120	80	1500	TYOH1E106F62MTR
25	33	336	8x12	G12	12	413	30	2980	TYOH1E336G12MTR
25	56	566	10x12.7	H13	12	700	28	3800	TYOH1E566H13MTR

* DF measured at 120Hz, 20°C

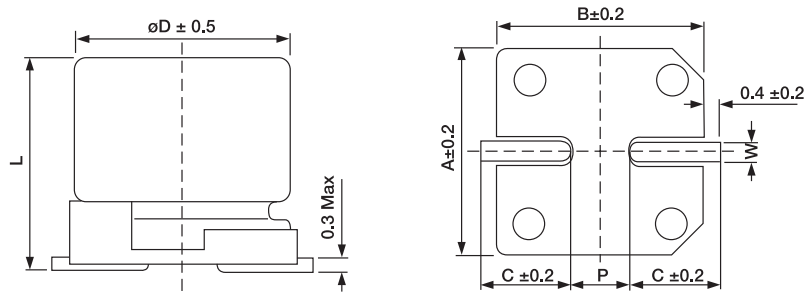
* DCL measured at 20°C

* ESR measured at 100kHz to 300kHz, 20°C

* RC measured at 100kHz, 105°C

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Dimensions



Case Code	Dimensions (mm)						
	Dia	L	A	B	C	W	P ± 0.2
F62	6.3	6.0 ± 0.2	6.6	6.6	2.7	0.5 to 0.8	2.0
F72	6.3	7.0 ± 0.2	6.6	6.6	2.7	0.5 to 0.8	2.0
G72	8.0	7.0 ± 0.2	8.4	8.4	3.0	0.7 to 1.1	3.1
G12	8.0	11.8 ± 0.5	8.4	8.4	3.0	0.7 to 1.1	3.1
H82	10	8.0 ± 0.2	10.4	10.4	3.3	0.7 to 1.1	4.7
H10	10	10 ± 0.5	10.4	10.4	3.3	0.7 to 1.1	4.7
H13	10	12.7 ± 0.5	10.4	10.4	3.3	0.7 to 1.1	4.7

How to Order

TYOH	0E	227	F62	M	TR
Common Part	Voltage Code	Capacitance	Case Code	Tolerance	Packaging
TYOH	0E (2.5V) 0G (4.0V) 0J (6.3V) 1A (10V) 1C (16V) 1D (20V) 1E (25V)	e.g. 227	e.g. F62	M (20%)	TR = 15" Reels F62, F72 and G72 Case - 1000pcs H82 and H10 Case - 500pcs G12 and H13 Case - 400pcs

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