

PPS Film Capacitor

Type: **ECHS**

Non-inductive construction using PPS film as designed for high heat resistance and high frequency applications



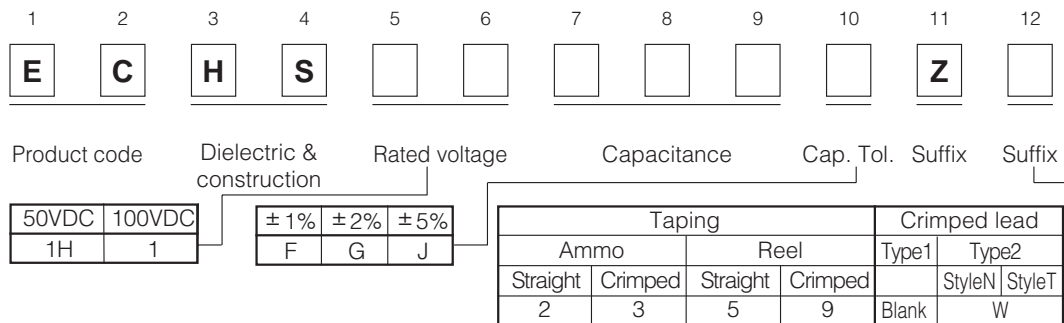
■ Features

- Wide operating temperature range -40 to +125°C
- Excellent temperature coefficient -100PPM/°C
- Excellent frequency characteristics

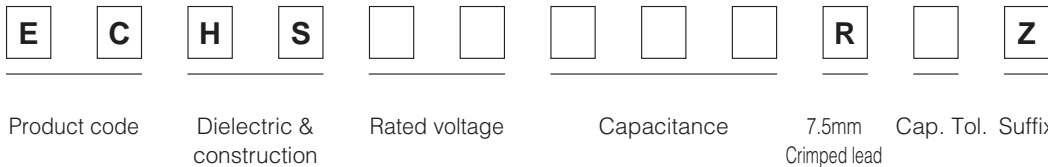
■ Recommended Applications

- Automotive
- Oscillation circuits

■ Explanation of Part Numbers



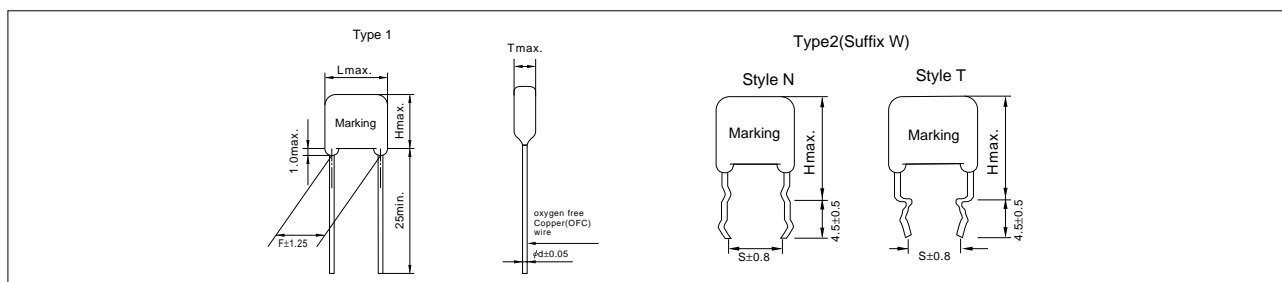
● Explanation of Part Number for Odd Size Taping



■ Specifications

Category temp. range	-40 to +125°C
Rated voltage	50VDC, 100VDC
Capacitance range	0.0001 to 0.47μF
Capacitance tolerance	± 1 % (F), ± 2% (G), ± 5% (J)
Dissipation factor	0.3% max. (20°C 1kHz)
Withstand voltage	Between terminals : Rated volt. (VDC) × 250% 1 to 5s
Insulation resistance	C ≤ 0.33μF : 45000MΩ min. (20°C, 100VDC 60s) C > 0.33μF : 15000MΩ · μF min.

■ Dimensions in mm (not to scale)

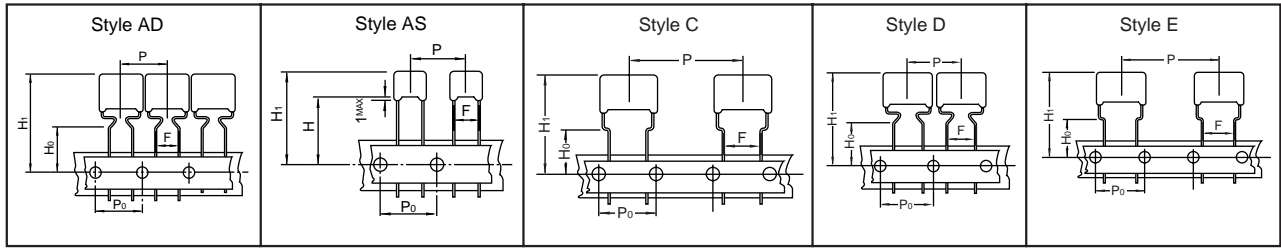


■ Packaging Specifications for Bulk Package

Packing quantity: 100pcs./bag

■ Taping Specifications for Automatic Insertion

● Taping style



*See page 22 for Taping dimensions

● Packaging Specifications

Type	Rated volt.	Cap. range (μF)	Taping style						Packing
			AD	AS	B	C	D	E	
ECHS	50VDC	0.001 to 0.056	○						Ammo
		0.001 to 0.056	○						Reel
		0.001 to 0.012		○					Ammo
		0.001 to 0.012		○					Reel
		0.068 to 0.47				○			Ammo
		0.068 to 0.12					○		Ammo
	100VDC	0.0001 to 0.027	○						Ammo
		0.0001 to 0.027	○						Reel
		0.0001 to 0.0047		○					Ammo
		0.0001 to 0.0047		○					Reel
		0.033 to 0.12				○			Ammo
		0.068 to 0.47						○	Ammo

● Lead Spacing

Style	Lead Spacing
AD	5.0mm
AS	5.0mm
C	5.0mm
D	7.5mm
E	7.5mm

* See the column "Rating, Dimensions & Quantity Box" for packing quantity.

■ Rating, Dimensions & Quantity/Ammo Box or Reel

● Rated voltage : 50VDC, Capacitance tolerance : ±1%(F), ±2%(G), ±5%(J)

Part No.	Cap. (μF)	Dimensions (mm)							Quantity	
		L ^{max.}	T ^{max.}	H ^{max.}		F	S	ød	Ammo	Reel
				Type-1	Type-2					
ECCHS1H102 □Z()	0.001	8.5	4.0	7.6	12.6	5.00	5.0	0.60	1000	—
ECCHS1H122 □Z()	0.0012	8.5	4.0	7.8	12.8	5.00	5.0	0.60		
ECCHS1H152 □Z()	0.0015	8.5	4.0	7.6	12.6	5.00	5.0	0.60		
ECCHS1H182 □Z()	0.0018	8.5	4.0	7.6	12.6	5.00	5.0	0.60		
ECCHS1H222 □Z()	0.0022	8.5	4.0	7.8	12.8	5.00	5.0	0.60		
ECCHS1H272 □Z()	0.0027	8.5	4.0	7.8	12.8	5.00	5.0	0.60		
ECCHS1H332 □Z()	0.0033	8.5	4.0	8.0	13.0	5.00	5.0	0.60		
ECCHS1H392 □Z()	0.0039	8.5	4.0	7.8	12.8	5.00	5.0	0.60		
ECCHS1H472 □Z()	0.0047	8.5	4.0	8.0	13.0	5.00	5.0	0.60		
ECCHS1H562 □Z()	0.0056	8.5	4.0	8.2	13.2	5.00	5.0	0.60		
ECCHS1H682 □Z()	0.0068	8.5	4.0	7.6	12.6	5.00	5.0	0.60		
ECCHS1H822 □Z()	0.0082	8.5	4.0	7.6	12.6	5.00	5.0	0.60		
ECCHS1H103 □Z()	0.01	8.5	4.0	7.8	12.8	5.00	5.0	0.60		
ECCHS1H123 □Z()	0.012	8.5	4.0	8.0	13.0	5.00	5.0	0.60		
ECCHS1H153 □Z()	0.015	12.0	4.5	7.8	12.8	7.50	5.0	0.60		
ECCHS1H183 □Z()	0.018	12.0	4.5	8.0	13.0	7.50	5.0	0.60		
ECCHS1H223 □Z()	0.022	12.0	4.5	8.2	13.2	7.50	5.0	0.60		
ECCHS1H273 □Z()	0.027	12.0	4.5	10.4	15.4	7.50	5.0	0.60		
ECCHS1H333 □Z()	0.033	12.0	4.5	10.6	15.6	7.50	5.0	0.60		
ECCHS1H393 □Z()	0.039	12.0	5.0	10.4	15.4	7.50	5.0	0.60		
ECCHS1H473 □Z()	0.047	12.0	5.0	10.8	15.8	7.50	5.0	0.60		
ECCHS1H563 □Z()	0.056	12.0	5.5	11.0	16.0	7.50	5.0	0.60		
ECCHS1H683 □Z()	0.068	14.5	5.0	11.2	16.2	10.00	5.0	0.60		
ECCHS1H823 □Z()	0.082	14.5	5.5	11.6	16.6	10.00	5.0	0.60		
ECCHS1H104 □Z()	0.1	14.5	6.0	12.0	17.0	10.00	5.0	0.60		
ECCHS1H124 □Z()	0.12	14.5	6.5	12.4	17.4	10.00	5.0	0.60		
ECCHS1H154 □Z()	0.15	17.0	6.5	12.4	17.4	12.50	5.0	0.60		
ECCHS1H184 □Z()	0.18	17.0	6.5	14.0	19.0	12.50	5.0	0.60		
ECCHS1H224 □Z()	0.22	17.0	7.0	14.4	19.4	12.50	5.0	0.60		
ECCHS1H274 □Z()	0.27	17.0	7.5	15.2	20.2	12.50	5.0	0.80		
ECCHS1H334 □Z()	0.33	17.0	8.5	15.8	20.8	12.50	5.0	0.80		
ECCHS1H394 □Z()	0.39	17.0	9.0	16.4	21.4	12.50	5.0	0.80		
ECCHS1H474 □Z()	0.47	17.0	10.0	17.2	22.2	12.50	5.0	0.80		

↑ Suffix for lead crimped or taped type
 ↑ Cap. tol. code

StyleN:0.001 to 0.012 μF
 StyleT:0.015 to 0.47 μF

■ Rating, Dimensions & Quantity/Ammo Box or Reel

● Rated voltage:100VDC, Capacitance tolerance : ±1%(F), ±2%(G), ±5%(J)

Part No.	Cap. (μ F)	Dimensions (mm)							Quantity		
		L _{max.}	T _{max.}	H _{max.}		F		S	ϕ d	Ammo	Reel
				Type-1	Type-2	Type-1	Type-2				
ECHS1101□Z()	0.0001	8.5	4.0	6.5	11.5	5.00	5.0	0.60	1000	1000	
ECHS1121□Z()	0.00012	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1151□Z()	0.00015	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1181□Z()	0.00018	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1221□Z()	0.00022	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1271□Z()	0.00027	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1331□Z()	0.00033	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1391□Z()	0.00039	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1471□Z()	0.00047	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1561□Z()	0.00056	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1681□Z()	0.00068	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1821□Z()	0.00082	8.5	4.0	6.5	11.5	5.00	5.0	0.60			
ECHS1102□Z()	0.001	10.0	4.5	7.0	12.0	5.00	5.0	0.60			
ECHS1122□Z()	0.0012	10.0	4.5	7.0	12.0	5.00	5.0	0.60			
ECHS1152□Z()	0.0015	10.0	4.5	7.0	12.0	5.00	5.0	0.60			
ECHS1182□Z()	0.0018	10.0	4.5	7.0	12.0	5.00	5.0	0.60			
ECHS1222□Z()	0.0022	10.0	4.5	7.5	12.5	5.00	5.0	0.60			
ECHS1272□Z()	0.0027	10.0	4.5	7.0	12.0	5.00	5.0	0.60			
ECHS1332□Z()	0.0033	10.0	4.5	7.5	12.5	5.00	5.0	0.60			
ECHS1392□Z()	0.0039	10.0	4.5	7.0	12.0	5.00	5.0	0.60			
ECHS1472□Z()	0.0047	10.0	5.0	7.5	12.5	5.00	5.0	0.60			
ECHS1562□Z()	0.0056	12.0	4.5	8.0	13.0	7.50	5.0	0.60			
ECHS1682□Z()	0.0068	12.0	4.5	7.8	12.8	7.50	5.0	0.60			
ECHS1822□Z()	0.0082	12.0	4.5	8.0	13.0	7.50	5.0	0.60			
ECHS1103□Z()	0.01	12.0	4.5	8.0	13.0	7.50	5.0	0.60			
ECHS1123□Z()	0.012	12.0	5.0	8.2	13.2	7.50	5.0	0.60			
ECHS1153□Z()	0.015	12.0	5.0	8.4	13.4	7.50	5.0	0.60			
ECHS1183□Z()	0.018	12.0	5.5	8.8	13.8	7.50	5.0	0.60			
ECHS1223□Z()	0.022	12.0	5.0	10.8	15.8	7.50	5.0	0.60			
ECHS1273□Z()	0.027	12.0	5.5	11.2	16.2	7.50	5.0	0.60			
ECHS1333□Z()	0.033	14.5	5.5	11.2	16.2	10.00	5.0	0.60			
ECHS1393□Z()	0.039	14.5	6.0	11.6	16.6	10.00	5.0	0.60			
ECHS1473□Z()	0.047	14.5	6.0	11.8	16.8	10.00	5.0	0.60			
ECHS1563□Z()	0.056	14.5	6.5	12.2	17.2	10.00	5.0	0.60			
ECHS1683□Z()	0.068	17.0	6.5	12.2	17.2	12.50	5.0	0.60			
ECHS1823□Z()	0.082	17.0	6.5	13.8	18.8	12.50	5.0	0.60			
ECHS1104□Z()	0.1	17.0	7.0	14.2	19.2	12.50	5.0	0.60			
ECHS1124□Z()	0.12	17.0	7.5	14.8	19.8	12.50	5.0	0.60			
ECHS1154□Z()	0.15	20.5	7.5	15.0	20.0	15.00	5.0	0.80			
ECHS1184□Z()	0.18	20.5	7.5	15.6	20.6	15.00	5.0	0.80			
ECHS1224□Z()	0.22	20.5	8.5	16.2	21.2	15.00	5.0	0.80			
ECHS1274□Z()	0.27	20.5	9.0	17.6	22.6	15.00	5.0	0.80			
ECHS1334□Z()	0.33	20.5	10.0	18.4	23.4	15.00	5.0	0.80			
ECHS1394□Z()	0.39	20.5	10.5	19.2	24.2	15.00	5.0	0.80			
ECHS1474□Z()	0.47	20.5	11.5	20.2	25.2	15.00	5.0	0.80			

↑ Suffix for lead crimped or taped type
 ↑ Cap. tol. code

StyleN:0.0001 to 0.0047 μ F
 StyleT:0.0056 to 0.47 μ F