

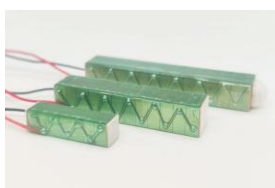


多层压电陶瓷

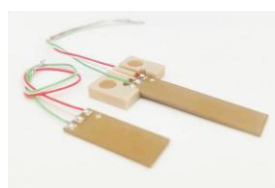
多层压电陶瓷是一种重要的换能材料，具有优良的机电耦合效应和对外场响应迅速且体积小、驱动电压低的特点，在机电换能及自动控制等领域得到了广泛应用。



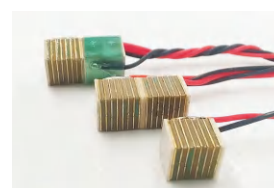
多层压电陶瓷片



多层压电陶瓷叠堆



多层全陶瓷双晶片



多层压电陶瓷剪切片

命名规则：

A	B	Bimorph	压电双晶片	RD	Roung Chips	圆形压电片
	BH	Bimorph With Holder	带基座压电双晶片	RG	Ring Chips	环形压电片
	C	Chips	方形压电片	S	Stack	方形压电叠堆
	CH	Chips With Hole	方形带中孔单片	SH	Stack With Hole	方形带中孔压电叠堆
	CS	Shear Chips	压电剪切片	SS	Shear Stack	压电剪切叠堆
	F	Stacks in Flexure	结构放大式压电叠堆	SRD	Round Stack	圆形压电叠堆
	SG	Stacks With Strain Gauges	带应变片压电叠堆	SRG	Ring Stack	环形压电叠堆
	CF	Co-Fired Piezoelectric	共烧压电陶瓷			
	B	Bimorph	压电双晶片	RD	Roung Chips	圆形压电片
	BH	Bimorph With Holder	带基座压电双晶片	RG	Ring Chips	环形压电片
	C	Chips	方形压电片	S	Stack	方形压电叠堆
	CH	Chips With Hole	方形带中孔单片	SH	Stack With Hole	方形带中孔压电叠堆
	CS	Shear Chips	压电剪切片	SS	Shear Stack	压电剪切叠堆
	F	Stacks in Flexure	结构放大式压电叠堆	SRD	Round Stack	圆形压电叠堆
	SG	Stacks With Strain Gauges	带应变片压电叠堆	SRG	Ring Stack	环形压电叠堆
	CF	Co-Fired Piezoelectric	共烧压电陶瓷			
B	驱动电压	1	-30 ~ 75V			
		2	-30 ~ 100V			
		3	-30 ~ 150V			
		4	-30 ~ 200V			
		5	-30 ~ 120V			
C	电极面尺寸	外径尺寸				
D	侧面尺寸	内径尺寸				
E	厚度尺寸					
F	端面处理	C1	一端氧化铝半球端帽	C3	氧化铝平面端帽	产品默认两端氧化铝平面
		C2	两端氧化铝半球端帽	C4	PZT不锈钢端帽	

多层压电陶瓷叠堆

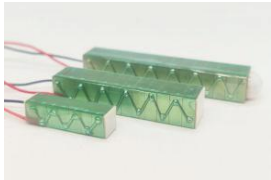
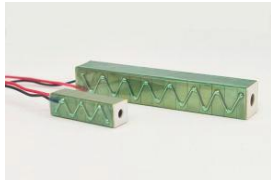
压电陶瓷堆栈由多个压电陶瓷片堆叠而成，并使用环氧树脂粘合起来。这些压电陶瓷堆栈能获得明显大于单个压电陶瓷芯片的自由行程，同时能保持亚毫秒级的响应时间和较低的驱动电压范围。

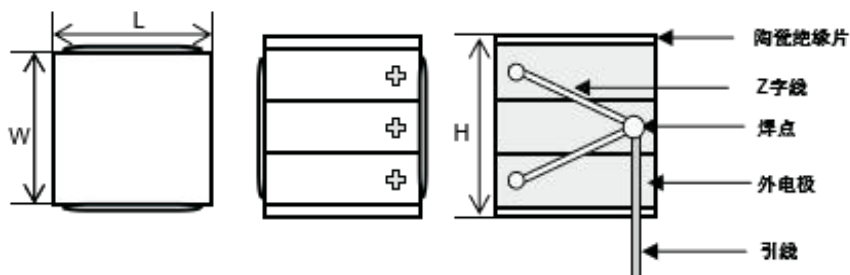
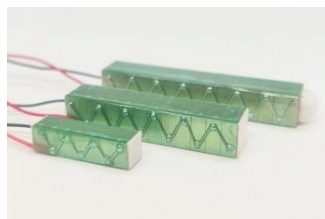
特性

- 亚毫秒级响应
- 亚微米级分辨率
- 方形&圆形&中孔可选
- 低功耗，抗磁场干扰
- 可真空环境使用
- 尺寸/电压可定制

叠堆的侧面上都有绝缘陶瓷层，与环氧树脂镀层相比，陶瓷层可更好地隔离湿气。叠堆预装了75mm长的电线，并包裹在Kapton®胶带中。我们也可以定制压电陶瓷片的尺寸、电压范围和涂层。

压电陶瓷叠堆的两个端面贴有陶瓷端帽。可选平面端帽或半球端帽。当负载沿着驱动器的平移轴方向时，平面端帽因具有较大的接触面积能实现大的力传递。而半球端帽使驱动器可以接合离轴负载，因为曲面使作用力沿着驱动器平移轴移动。陶瓷端帽不仅有利于使负载施加的力分布在堆栈的安装表面上，而且有助于引导力沿着驱动器的移动轴。

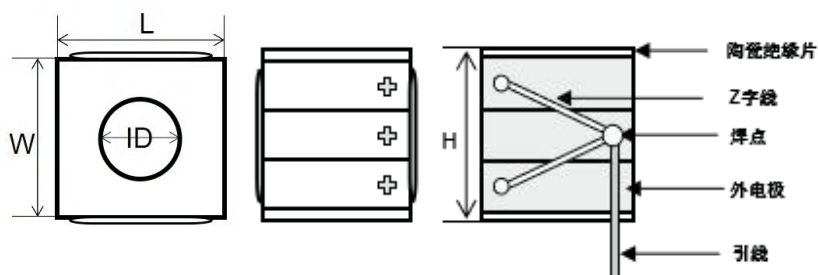
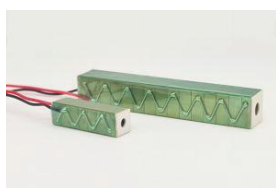
产品外形	方形	方形中孔	圆形	环形
产品图片				
产品尺寸/mm	0.9×0.9~14×14	5×5(Ø2) 7×7(Ø3)	Ø8.3	Ø8.3-Ø3.0 Ø6.0-Ø2.5
驱动电压/V	0~75/100/ 120/150	0~150	0~150	0~150
标称位移/μm	5.0~100	7.0~40	9.0	9.0



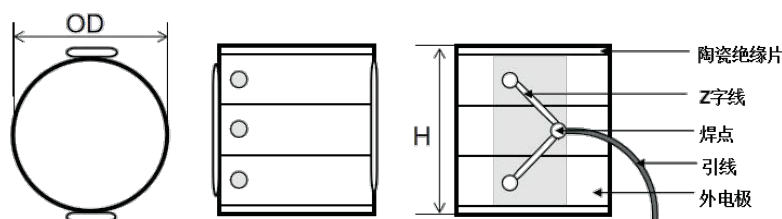
方 形	电压	产品尺寸	电容(±15%)	频率	位移(±15%)	最大推力
DCS1-030318	75 V	3.0 × 3.0 × 18.8 mm	2.25 μF	65 kHz	18.0 μm	360 N
DCS1-030331	75 V	3.0 × 3.0 × 31.0 mm	3.75 μF	40 kHz	30.0 μm	360 N
DCS1-050510	75 V	5.0 × 5.0 × 10.5 mm	4.2 μF	115 kHz	11.2 μm	1000 N
DCS1-050518	75 V	5.0 × 5.0 × 18.0 mm	7.3 μF	65 kHz	19.6 μm	1000 N
DCS1-050523	75 V	5.0 × 5.0 × 23.0 mm	9.4 μF	55 kHz	25.2 μm	1000 N
DCS1-050539	75 V	5.0 × 5.0 × 39.8 mm	16.5 μF	30 kHz	44.8 μm	1000 N
DCS2-020210	100V	2.0 × 2.0 × 10.9 mm	240 nF	115 kHz	9.5 μm	160 N
DCS2-030310	100V	3.0 × 3.0 × 10.9 mm	620 nF	115 kHz	10.5 μm	360 N
DCS2-030320	100V	3.0 × 3.0 × 20.9 mm	1.25 μF	60 kHz	21.0 μm	360 N
DCS2-030331	100V	3.0 × 3.0 × 31.0 mm	1.85 μF	40 kHz	31.5 μm	360 N
DCS5-070736	120V	7.0 × 7.0 × 36.0 mm	7.2 μF	35 kHz	38.0 μm	1960 N
DCS3-020210	150V	2.0 × 2.0 × 10.9 mm	110 nF	115 kHz	9.5 μm	160 N
DCS3-252505	150V	2.5 × 2.5 × 5.0 mm	100 nF	250 kHz	5.2 μm	250 N
DCS3-252510	150V	2.5 × 2.5 × 10.0 mm	175 nF	130 kHz	9.2 μm	250 N
DCS3-252519	150V	2.5 × 2.5 × 19.4 mm	360 nF	68 kHz	19.0 μm	250 N
DCS3-030305	150V	3.0 × 3.0 × 5.0 mm	130 nF	265 kHz	4.8 μm	360 N
DCS3-030307	150V	3.0 × 3.0 × 7.0 mm	180 nF	192 kHz	6.8 μm	360 N
DCS3-030309	150V	3.0 × 3.0 × 9.0 mm	250 nF	140 kHz	9.5 μm	360 N
DCS3-030310	150V	3.0 × 3.0 × 10.0 mm	275 nF	132 kHz	11.0 μm	360 N
DCS3-030318	150V	3.0 × 3.0 × 18.8 mm	530 nF	65 kHz	19.8 μm	360 N
DCS3-030331	150V	3.0 × 3.0 × 31.0 mm	930 nF	40 kHz	33.0 μm	360 N
DCS3-050509	150V	5.0 × 5.0 × 9.0 mm	650 nF	140 kHz	9.5 μm	1000 N
DCS3-050510	150V	5.0 × 5.0 × 10.0 mm	800 nF	126 kHz	10.0 μm	1000 N

方 形	电压	产品尺寸	电容(±15%)	频率	位移(±15%)	最大推力
DCS3-050512	150V	5.0 × 5.0 × 12.0 mm	850nF	105 kHz	12.0um	1000 N
DCS3-050518	150V	5.0 × 5.0 × 18.0 mm	1.5 μF	70 kHz	20.0 um	1000 N
DCS3-050520	150V	5.0 × 5.0 × 20.0mm	1.6 μF	65 kHz	21.0 um	1000 N
DCS3-050536	150V	5.0 × 5.0 × 36.0 mm	3.0 μF	34 kHz	40.0 um	1000 N
DCS3-050538	150V	5.0 × 5.0 × 38.0 mm	3.3 μF	34 kHz	40.0 um	1000 N
DCS3-050540	150V	5.0 × 5.0 × 40.0 mm	3.2μF	32 kHz	43.0 um	1000 N
DCS3-050548	150V	5.0 × 5.0 × 48.0 mm	4.2 μF	26 kHz	50.0 um	1000 N
DCS3-050550	150V	5.0 × 5.0 × 50.0 mm	4.1μF	25 kHz	55.0 um	1000 N
DCS3-070709	150V	7.0 × 7.0 × 9.0 mm	1.4 μF	130 kHz	8.5 um	1960 N
DCS3-070718	150V	7.0 × 7.0 × 18.0 mm	2.9 μF	70 kHz	19.0 um	1960 N
DCS3-070720	150V	7.0 × 7.0 × 20.0 mm	3.2 μF	62 kHz	21.0 um	1960 N
DCS3-070730	150V	7.0 × 7.0 × 30.0 mm	4.6 μF	42 kHz	32.0 um	1960 N
DCS3-070736	150V	7.0 × 7.0 × 36.0 mm	6.0 μF	35 kHz	38.0 um	1960 N
DCS3-070745	150V	7.0 × 7.0 × 45.0 mm	7.2 μF	27 kHz	50.0 um	1960 N
DCS3-070750	150V	7.0 × 7.0 × 50.0 mm	8.5μF	24 kHz	55.0 um	1960 N
DCS3-070790	150V	7.0 × 7.0 × 90.0 mm	15.5 μF	14 kHz	100.0 um	1960 N
DCS3-101018	150V	10.0 × 10.0 × 18.0 mm	6.0 μF	65 kHz	20.0 um	4000 N
DCS3-101036	150V	10.0 × 10.0 × 36.0 mm	13.0 μF	34 kHz	40.0 um	4000 N
DCS3-101045	150V	10.0 × 10.0 × 45.0 mm	15.0 μF	15 kHz	50.0 um	4000 N
DCS1-030332C1	75 V	3.0 × 3.0 × 32.2 mm	3.75 μF	40 kHz	30.0 um	360 N
DCS1-050512C1	75 V	5.0 × 5.0 × 12.6 mm	4.2 μF	115 kHz	11.2 um	1000 N
DCS1-050520C1	75 V	5.0 × 5.0 × 20.1 mm	7.3 μF	65 kHz	19.6 um	1000 N
DCS1-050525C1	75 V	5.0 × 5.0 × 25.1 mm	9.4 μF	55 kHz	25.2 um	1000 N
DCS1-050541C1	75 V	5.0 × 5.0 × 41.9 mm	16.5 μF	30 kHz	44.8 um	1000 N
DCS2-020211C1	100V	2.0 × 2.0 × 11.5 mm	240 nF	115 kHz	9.5 um	160 N
DCS2-030312C1	100V	3.0 × 3.0 × 12.0 mm	620 nF	115 kHz	10.5 um	360 N
DCS2-030322C1	100V	3.0 × 3.0 × 22.1 mm	1250 nF	60 kHz	21.0 um	360 N
DCS2-030332C1	100V	3.0 × 3.0 × 32.2 mm	1850 nF	40 kHz	31.5 um	360 N
DCS3-020211C1	150V	2.0 × 2.0 × 11.5 mm	110 nF	115 kHz	9.5 um	160 N

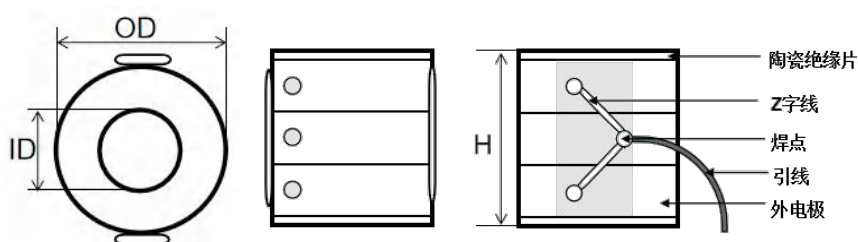
方 形	电压	产品尺寸	电容(±15%)	频率	位移(±15%)	最大推力
DCS3-252506C1	150V	2.5 × 2.5 × 6.1 mm	100 nF	250 kHz	5.2 μm	250 N
DCS3-252511C1	150V	2.5 × 2.5 × 11.0 mm	175 nF	125 kHz	9.2 μm	250 N
DCS3-030310C1	150V	3.0 × 3.0 × 10.0 mm	360 nF	140 kHz	8.8 μm	360 N
DCS3-030320C1	150V	3.0 × 3.0 × 20.0 mm	550 nF	65 kHz	19.8 μm	360 N
DCS3-030332C1	150V	3.0 × 3.0 × 32.2 mm	930 nF	40 kHz	33.0 μm	360 N
DCS3-050511C1	150V	5.0 × 5.0 × 11.0 mm	750 nF	140 kHz	9.5 μm	1000 N
DCS3-050520C1	150V	5.0 × 5.0 × 20.1 mm	1.5 μF	70 kHz	20.0 μm	1000 N
DCS3-050538C1	150V	5.0 × 5.0 × 38.1 mm	3.2 μF	34 kHz	40.0 μm	1000 N
DCS3-050552C1	150V	5.0 × 5.0 × 52.2 mm	4.5 μF	25 kHz	55.0 μm	1000 N
DCS3-070712C1	150V	7.0 × 7.0 × 12.0 mm	1.4 μF	130 kHz	8.5 μm	1960 N
DCS3-070721C1	150V	7.0 × 7.0 × 21.1 mm	3.0 μF	70 kHz	19.0 μm	1960 N
DCS3-070739C1	150V	7.0 × 7.0 × 39.1 mm	6.0 μF	35 kHz	38.0 μm	1960 N
DCS3-070748C1	150V	7.0 × 7.0 × 48.1 mm	9.0 μF	27 kHz	50.0 μm	1960 N
DCS3-070793C1	150V	7.0 × 7.0 × 93.5 mm	16.0 μF	14 kHz	100.0 μm	1960 N
DCS3-101022C1	150V	10.0 × 10.0 × 22.6 mm	6.0 μF	65 kHz	20.0 μm	4000 N
DCS3-101040C1	150V	10.0 × 10.0 × 40.7 mm	13.0 μF	34 kHz	40.0 μm	4000 N
DCS3-101049C1	150V	10.0 × 10.0 × 49.7 mm	15.0 μF	27 kHz	50.0 μm	4000 N
DCS3-252511C1	150V	2.5 × 2.5 × 11.0 mm	175 nF	125 kHz	9.2 μm	250 N



方形中孔	电压	产品尺寸	电容 (±15%)	频率	位移 (±15%)	最大推力
DCSH3-050509	150V	5.0 × 5.0 × 9.0 & 2 mm hole	0.56 μF	140 kHz	7.0 μm	114 N
DCSH3-050525	150V	5.0 × 5.0 × 25.0 & 2 mm hole	1.3 μF	52 kHz	20.0 μm	40.0 N
DCSH3-050550	150V	5.0 × 5.0 × 50.0 & 2 mm hole	2.7 μF	26 kHz	40.0 μm	20.0 N
DCSH3-070745	150V	7.0 × 7.0 × 45.0 & 3 mm hole	5.5 μF	30 kHz	40.0 μm	40.0 N



圆 形	电压	产品尺寸	电容 (±15%)	频率	位移 (±15%)	最大推力
DCRD4-0509	200V	Ø5.0 × 9.0 mm	570 nF ± 15%	135kHz	11 μm ± 15%	780 N
DCRD4-0809	200V	Ø8.3 × 9.0 mm	2200 nF ± 15%	355kHz	12 μm ± 15%	1800 N



环 形	电压	产品尺寸	电容 (±15%)	频率	位移 (±15%)	最大推力
DCRG3-062513	150V	6.0 × 2.5 × 13.0 mm	725nF ± 15%	100kHz	9.5 μm ± 15%	930 N
DCRG3-080309	150V	8.3 × 3.0 × 9.0 mm	2000nF ± 15%	127kHz	9.0 μm ± 15%	1800 N
DCRG3-150913	150V	15.0 × 9.0 × 13.5 mm	8400nF ± 15%	70kHz	15 μm ± 15%	4520 N