

## HS series

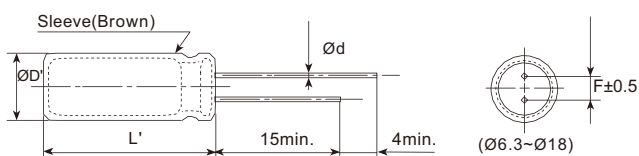
- Endurance: 3,000~5,000 hours at 105°C
- High ripple current; For power supply applications
- RoHS Compliant



### SPECIFICATIONS

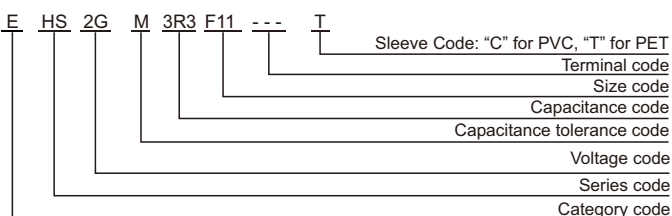
Items	Characteristics										
Category Temperature Range	-40~+105°C(160~450V <sub>dc</sub> )					-25~+105°C(500~550V <sub>dc</sub> )					
Rated Working Voltage Range	160~550 V <sub>dc</sub>										
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)										
Leakage Current		After 1 minute		After 5 minutes		Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C)					
	CV≤1000	I≤0.1CV+40μA		I≤0.03CV+15μA							
	CV>1000	I≤0.04CV+100μA		I≤0.02CV+25μA							
Dissipation Factor (tanδ)	Rated Voltage(V <sub>dc</sub> )	160	200	250	350	400	420	450	500	550	(at 20°C, 120Hz)
	Dissipation Factor(Max.)	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.24	0.24	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(V <sub>dc</sub> )	160	200	250	350	400	420	450	500	550	(at 120Hz)
	Z(-25°C)/Z(+20°C)	3	3	3	6	6	6	6	8	8	
	Z(-40°C)/Z(+20°C)	8	8	8	10	10	12	15	-	-	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for a specified period of time at 105°C.										
	Capacitance Change	≤±20% of the initial value								Case Dia.(mm): Load life (hours)	
	Dissipation Factor	≤200% of the initial specified value								ØD≤8 3,000	
	Leakage Current	≤The initial specified value								ØD≥10 5,000	
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied.										
	Capacitance Change	≤±20% of the initial value									
	Dissipation Factor	≤200% of the initial specified value									
	Leakage Current	≤200% of the initial specified value									

### DIMENSIONS[mm]



ØD	6.3	8	10	12.5	13	16	18
Ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.5	3.5	5.0	5.0	5.0	7.5	7.5
ØD'	ØD+0.5max.						
L'	L+2max.						

### PART NUMBERING SYSTEM



### RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz)	120	1k	10k	100k
<100	1.0	1.75	2.25	2.50
≥100	1.0	1.67	2.05	2.25

**HS series**

■ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part Number	
160	1	6.3x9	15	EHS2CM010E09---T	
	2.2	6.3x9	22	EHS2CM2R2E09---T	
	2.2	6.3x11	32	EHS2CM2R2E11---T	
	3.3	6.3x11	40	EHS2CM3R3E11---T	
	4.7	6.3x12	47	EHS2CM4R7E12---T	
	6.8	8x9	62	EHS2CM6R8F09---T	
	6.8	8x11	65	EHS2CM6R8F11---T	
	8.2	8x9	70	EHS2CM8R2F09---T	
	8.2	8x11	75	EHS2CM8R2F11---T	
	10	8x12	80	EHS2CM100F12---T	
	15	8x12	115	EHS2CM150F12---T	
	18	8x12	125	EHS2CM180F12---T	
	18	8x16	145	EHS2CM180F16---T	
	22	8x16	150	EHS2CM220F16---T	
	22	10x12	165	EHS2CM220G12---T	
	33	10x12	180	EHS2CM330G12---T	
	33	10x14	190	EHS2CM330G14---T	
	47	10x14	210	EHS2CM470G14---T	
	47	10x16	240	EHS2CM470G16---T	
	68	10x18	320	EHS2CM680G18---T	
	68	12.5x16	370	EHS2CM680W16---T	
	82	12.5x16	385	EHS2CM820W16---T	
	82	12.5x20	405	EHS2CM820W20---T	
	100	12.5x20	430	EHS2CM101W20---T	
	100	16x16	445	EHS2CM101L16---T	
	150	12.5x25	465	EHS2CM151W25---T	
	150	16x20	500	EHS2CM151L20---T	
220	16x25	815	EHS2CM221L25---T		
270	16x30	880	EHS2CM271L30---T		
270	18x25	890	EHS2CM271M25---T		
200	1	6.3x9	15	EHS2DM010E09---T	
	2.2	6.3x11	32	EHS2DM2R2E11---T	
	3.3	6.3x12	40	EHS2DM3R3E12---T	
	4.7	6.3x12	47	EHS2DM4R7E12---T	
	6.8	8x9	60	EHS2DM6R8F09---T	
	6.8	8x11	70	EHS2DM6R8F11---T	
	8.2	8x11	75	EHS2DM8R2F11---T	
	10	8x12	80	EHS2DM100F12---T	
	15	8x12	95	EHS2DM150F12---T	
	15	8x16	118	EHS2DM150F16---T	
	18	8x16	125	EHS2DM180F16---T	
	22	8x16	140	EHS2DM220F16---T	
	22	10x12	155	EHS2DM220G12---T	
	33	10x14	160	EHS2DM330G14---T	
	33	10x16	175	EHS2DM330G16---T	
	47	10x16	215	EHS2DM470G16---T	
	68	12.5x18	310	EHS2DM680W18---T	
	68	12.5x20	330	EHS2DM680W20---T	
	82	12.5x20	355	EHS2DM820W20---T	
	100	12.5X25	440	EHS2DM101W25---T	
	100	16x16	450	EHS2DM101L16---T	
	150	12.5x30	600	EHS2DM151W30---T	
	150	16x25	620	EHS2DM151L25---T	
	220	18x25	680	EHS2DM221M25---T	
	270	18x30	750	EHS2DM271M30---T	
	250	1	6.3x9	15	EHS2EM010E09---T
		2.2	6.3x11	37	EHS2EM2R2E11---T

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part Number	
250	3.3	6.3x12	40	EHS2EM3R3E12---T	
	4.7	6.3x12	55	EHS2EM4R7E12---T	
	6.8	8x9	65	EHS2EM6R8F09---T	
	8.2	8x9	75	EHS2EM8R2F09---T	
	8.2	8x11	85	EHS2EM8R2F11---T	
	10	8x12	95	EHS2EM100F12---T	
	15	8x16	120	EHS2EM150F16---T	
	18	10x12	150	EHS2EM180G12---T	
	22	10x14	168	EHS2EM220G14---T	
	33	10x16	210	EHS2EM330G16---T	
	47	12.5x18	320	EHS2EM470W18---T	
	56	12.5x20	350	EHS2EM560W20---T	
	82	12.5X25	450	EHS2EM820W25---T	
	82	16x18	475	EHS2EM820L18---T	
	100	12.5x30	510	EHS2EM101W30---T	
	100	16x25	530	EHS2EM101L25---T	
	150	18x25	550	EHS2EM151M25---T	
	150	16x30	570	EHS2EM151L30---T	
	220	18x30	710	EHS2EM221M30---T	
	270	18x35	780	EHS2EM271M35---T	
	350	1	6.3x11	24	EHS2VM010E11---T
		2.2	6.3x11	30	EHS2VM2R2E11---T
		3.3	6.3x12	40	EHS2VM3R3E12---T
		4.7	8x9	47	EHS2VM4R7F09---T
		6.8	8x11	65	EHS2VM6R8F11---T
		8.2	8x12	78	EHS2VM8R2F12---T
		10	8x16	95	EHS2VM100F16---T
15		10x12	125	EHS2VM150G12---T	
18		10x14	160	EHS2VM180G14---T	
22		10x16	175	EHS2VM220G16---T	
33		12.5x18	240	EHS2VM330W18---T	
47		12.5X25	320	EHS2VM470W25---T	
56		16x18	355	EHS2VM560L18---T	
68		12.5x30	395	EHS2VM680W30---T	
82		16x25	475	EHS2VM820L25---T	
100		16x30	520	EHS2VM101L30---T	
100		18x25	530	EHS2VM101M25---T	
150		18x30	570	EHS2VM151M30---T	
220		18x40	720	EHS2VM221M40---T	
400		1	6.3x11	25	EHS2GM010E11---T
		2.2	6.3x11	30	EHS2GM2R2E11---T
		3.3	6.3x12	40	EHS2GM3R3E12---T
		4.7	8x9	47	EHS2GM4R7F09---T
		6.8	8x11	65	EHS2GM6R8F11---T
		8.2	8x12	78	EHS2GM8R2F12---T
		10	8x16	95	EHS2GM100F16---T
		10	10X10	100	EHS2GM100G10---T
	15	10x12	130	EHS2GM150G12---T	
	15	10x14	140	EHS2GM150G14---T	
	18	10x16	165	EHS2GM180G16---T	
	22	10x16	180	EHS2GM220G16---T	
	22	12.5X16	210	EHS2GM220W16---T	
	33	12.5x18	260	EHS2GM330W18---T	
	33	12.5X20	275	EHS2GM330W20---T	
	47	12.5X25	350	EHS2GM470W25---T	
	47	16X18	365	EHS2GM470L18---T	
	56	12.5x30	385	EHS2GM560W30---T	

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### STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part Number
400	68	16x25	420	EHS2GM680L25---T
	82	16x30	475	EHS2GM820L30---T
	82	18X25	500	EHS2GM820M25---T
	100	18x25	540	EHS2GM101M25---T
	100	18x30	560	EHS2GM101M30---T
	150	18x40	580	EHS2GM151M40---T
	420	1	6.3x11	25
2.2		6.3x11	30	EHS2TM2R2E11---T
3.3		6.3x12	40	EHS2TM3R3E12---T
4.7		8X9	47	EHS2TM4R7F09---T
6.8		8x11	65	EHS2TM6R8F11---T
8.2		8x12	80	EHS2TM8R2F12---T
8.2		10x10	82	EHS2TM8R2G10---T
10		8x16	95	EHS2TM100F16---T
10		10x12	100	EHS2TM100G12---T
15		10x14	140	EHS2TM150G14---T
15		10x16	145	EHS2TM150G16---T
18		10x16	165	EHS2TM180G16---T
22		10x18	180	EHS2TM220G18---T
22		12.5x16	210	EHS2TM220W16---T
33		12.5x20	260	EHS2TM330W20---T
33		13x18	260	EHS2TM330K18---T
47		12.5x25	355	EHS2TM470W25---T
47		16x20	370	EHS2TM470L20---T
56		16x25	420	EHS2TM560L25---T
82		16x30	540	EHS2TM820L30---T
82	18X25	550	EHS2TM820M25---T	
100	18x30	580	EHS2TM101M30---T	
150	18x40	650	EHS2TM151M40---T	
450	1	6.3x11	25	EHS2WM010E11---T
	2.2	6.3x11	30	EHS2WM2R2E11---T
	3.3	8x9	40	EHS2WM3R3F09---T
	3.3	8x11	45	EHS2WM3R3F11---T
	4.7	8x11	50	EHS2WM4R7F11---T
	6.8	8x12	68	EHS2WM6R8F12---T
	8.2	10x10	85	EHS2WM8R2G10---T
	10	8x16	100	EHS2WM100F16---T
	10	10x12	105	EHS2WM100G12---T
	15	10x16	150	EHS2WM150G16---T
	18	10x18	170	EHS2WM180G18---T
	22	12.5x16	185	EHS2WM220W16---T
	22	12.5x20	215	EHS2WM220W20---T
	33	12.5x25	280	EHS2WM330W25---T
	33	16x18	290	EHS2WM330L18---T
	47	16x20	370	EHS2WM470L20---T
	47	16x25	390	EHS2WM470L25---T
	56	18x20	430	EHS2WM560M20---T
	82	16x35	550	EHS2WM820L35---T
	82	18x30	560	EHS2WM820M30---T
100	18x31	600	EHS2WM101M31---T	
150	18x40	680	EHS2WM151M40---T	
150	18x45	710	EHS2WM151M45---T	
500	4.7	8x16	45	EHS2HM4R7F16---T
	5.6	10x12	50	EHS2HM5R6G12---T
	5.6	10x14	55	EHS2HM5R6G14---T
	6.8	10x14	60	EHS2HM6R8G14---T

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part Number
500	8.2	10x16	75	EHS2HM8R2G16---T
	10	10x18	95	EHS2HM100G18---T
	10	12.5x16	100	EHS2HM100W16---T
	15	12.5x16	130	EHS2HM150W16---T
	15	12.5x18	135	EHS2HM150W18---T
	22	13x20	170	EHS2HM220K20---T
	22	12.5x22	185	EHS2HM220W22---T
	33	16x20	280	EHS2HM330L20---T
	33	16x25	290	EHS2HM330L25---T
	47	18x25	370	EHS2HM470M25---T
	47	16x30	390	EHS2HM470L30---T
	56	18x25	440	EHS2HM560M25---T
	68	18x30	480	EHS2HM680M30---T
	68	16x35	500	EHS2HM680L35---T
	82	18x35	560	EHS2HM820M35---T
	100	18x40	620	EHS2HM101M40---T
	120	18x45	650	EHS2HM121M45---T
550	10	12.5x16	85	EHS2JM100W16---T
	10	12.5x20	90	EHS2JM100W20---T
	12	12.5x20	110	EHS2JM120W20---T
	12	12.5x25	115	EHS2JM120W25---T
	15	12.5x25	130	EHS2JM150W25---T
	15	12.5x30	135	EHS2JM150W30---T
	22	16x20	190	EHS2JM220L20---T
	33	16x25	280	EHS2JM330L25---T
	33	18x20	295	EHS2JM330M20---T
	47	18x30	400	EHS2JM470M30---T
	56	18x35	440	EHS2JM560M35---T

※ Specifications subject to change without notice.