

SXE Series

- Low impedance capacitors, operating temperature range from -55 to 105°C
- Solvent-proof type
- Pb-free design

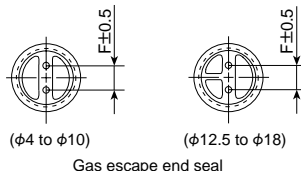
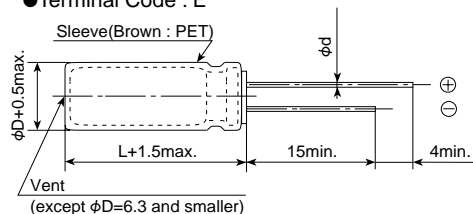


◆ SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-55 to +105°C	
Rated Voltage Range	6.3 to 100V _{dc}	
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)	
Leakage Current	I=0.03CV (after 1 minute at 20°C) Where: I:Max. leakage current (µA), C:Nominal capacitance (µF), V:Rated voltage (V) I=0.01CV (after 2 minutes at 20°C)	
Dissipation factor (tanδ)	Rated voltage(V _{dc})	6.3 10 16 25 35 50 63 80 100
	tanδ (Max.)	0.22 0.19 0.16 0.14 0.12 0.10 0.08 0.08 0.07
Endurance	When nominal capacitance exceeds 1,000µF, add 0.02 to the value above for each 1,000µF increase. (at 20°C, 120Hz)	
	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for the specified period of lifetime at 105°C.	
	Lifetime	1,000 hours (φ4 to 8) 2,000 hours (φ10 to 18)
	Capacitance change	≤±20% of the initial value ≤±20% of the initial value
	D.F. (tanδ)	≤200% of the initial specified value ≤200% of the initial specified value
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
	D.F. (tanδ)	≤150% of the initial specified value
	Leakage current	≤the initial specified value

◆ DIMENSIONS [mm]

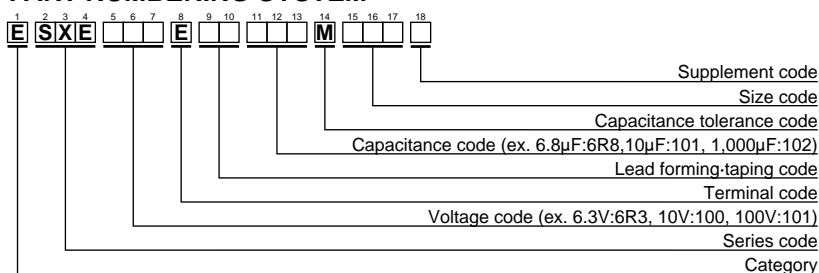
- Terminal Code : E



φD	4	5	6.3	8	10 & 12.5	16 & 18
φd	0.45	0.5*	0.5*	0.6	0.6	0.8
F	1.5	2.0	2.5	3.5	5.0	7.5

*For L=7mm, φd is 0.45

◆ PART NUMBERING SYSTEM



Specifications in this bulletin are subject to change without notice.

◆STANDARD RATINGS

VV (Vdc)	Cap (μF)	Case size φD×L (mm)	Impedance (Ωmax/100kHz)		Rated ripple current (mA Arms/105°C)		Part No.	VV (Vdc)	Cap (μF)	Case size φD×L (mm)	Impedance (Ωmax/100kHz)		Rated ripple current (mA Arms/105°C)		Part No.
			20°C	-10°C	100kHz	120Hz					20°C	-10°C	100kHz	120Hz	
			Detailed table content follows the same structure as the image, with rows for VV=6.3, 10, 16, and 25. Each row contains multiple entries for different capacitor specifications.												

□ : Lead forming / Taping code

Specifications in this bulletin are subject to change without notice.

◆STANDARD RATINGS

VV (Vdc)	Cap (μF)	Case size φD×L (mm)	Impedance (Ωmax/100kHz)		Rated ripple current (mA Arms/105°C)		Part No.
			20°C	-10°C	100kHz	120Hz	
			25	3,900	18x35	0.040	
	4,700	18x40	0.036	0.094	2,460	2,215	ESXE250E□□472MM40S
	6.8	4x7	5.2	13.4	50	25	ESXE350E□□6R8MD07D
	12	5x7	3.2	8.3	75	38	ESXE350E□□120ME07D
	15	4x11.5	2.1	5.4	102	51	ESXE350E□□150MDB5D
	27	5x11.5	1.2	3.1	154	77	ESXE350E□□270MEB5D
	27	6.3x7	1.3	3.4	140	70	ESXE350E□□270MF07D
	39	5x15	0.87	2.3	210	147	ESXE350E□□390ME15D
	56	6.3x11.5	0.57	1.5	260	182	ESXE350E□□560MFB5D
	82	6.3x15	0.37	0.96	350	245	ESXE350E□□820MF15D
	100	8x12	0.32	0.83	400	280	ESXE350E□□101MH12D
	120	10x12.5	0.26	0.68	510	360	ESXE350E□□121MJC5S
	150	8x15	0.23	0.60	500	350	ESXE350E□□151MH15D
	180	10x15	0.21	0.55	635	445	ESXE350E□□181MJ15S
	220	8x20	0.18	0.47	650	455	ESXE350E□□221MH20D
	330	10x20	0.13	0.34	860	605	ESXE350E□□331MJ20S
	330	12.5x15	0.11	0.29	970	680	ESXE350E□□331MK15S
	390	10x25	0.11	0.29	1,030	825	ESXE350E□□391MJ25S
	470	10x30	0.089	0.23	1,150	920	ESXE350E□□471MJ30S
	560	12.5x20	0.083	0.22	1,120	900	ESXE350E□□561MK20S
	560	16x15	0.096	0.25	1,100	880	ESXE350E□□561ML15S
	680	12.5x25	0.070	0.18	1,320	1,060	ESXE350E□□681MK25S
	820	18x15	0.076	0.20	1,280	1,155	ESXE350E□□821MM15S
	1,000	12.5x30	0.061	0.16	1,540	1,390	ESXE350E□□102MK30S
	1,000	16x20	0.071	0.18	1,370	1,100	ESXE350E□□102ML20S
	1,200	12.5x35	0.049	0.13	1,770	1,595	ESXE350E□□122MK35S
	1,200	16x25	0.062	0.16	1,570	1,415	ESXE350E□□122ML25S
	1,500	12.5x40	0.043	0.11	1,980	1,785	ESXE350E□□152MK40S
	1,500	18x20	0.059	0.15	1,580	1,425	ESXE350E□□152MM20S
	1,800	16x30	0.052	0.14	1,810	1,630	ESXE350E□□182ML30S
	1,800	18x25	0.050	0.13	1,830	1,650	ESXE350E□□182MM25S
	2,200	16x35	0.044	0.11	2,030	1,830	ESXE350E□□222ML35S
	2,200	18x30	0.044	0.11	2,030	1,830	ESXE350E□□222MM30S
	2,700	16x40	0.036	0.094	2,320	2,090	ESXE350E□□272ML40S
	2,700	18x35	0.039	0.10	2,240	2,020	ESXE350E□□272MM35S
	3,300	18x40	0.035	0.091	2,460	2,215	ESXE350E□□332MM40S
	4.7	4x7	5.0	13.0	50	20	ESXE500E□□4R7MD07D
	8.2	5x7	3.1	8.1	75	38	ESXE500E□□8R2ME07D
	10	4x11.5	2.0	5.2	102	51	ESXE500E□□100MDB5D
	18	5x11.5	1.2	3.1	154	77	ESXE500E□□180MEB5D
	18	6.3x7	1.3	3.4	140	70	ESXE500E□□180MF07D
	27	5x15	0.84	2.2	210	105	ESXE500E□□270ME15D
	39	6.3x11.5	0.55	1.4	260	182	ESXE500E□□390MFB5D
	56	6.3x15	0.36	0.94	350	245	ESXE500E□□560MF15D
	68	8x12	0.31	0.81	400	280	ESXE500E□□680MH12D
	82	8x15	0.22	0.57	500	350	ESXE500E□□820MH15D
	82	10x12.5	0.25	0.65	510	360	ESXE500E□□820MJC5S
	100	10x15	0.20	0.52	635	445	ESXE500E□□101MJ15S
	120	8x20	0.17	0.44	650	455	ESXE500E□□121MH20D
	180	10x20	0.13	0.34	860	605	ESXE500E□□181MJ20S
	180	12.5x15	0.11	0.29	970	680	ESXE500E□□181MK15S
	220	10x25	0.11	0.29	1,030	725	ESXE500E□□221MJ25S
	330	10x30	0.086	0.22	1,150	805	ESXE500E□□331MJ30S
	330	12.5x20	0.081	0.22	1,120	785	ESXE500E□□331MK20S
	330	16x15	0.093	0.20	1,100	770	ESXE500E□□331ML15S
	470	12.5x25	0.068	0.19	1,320	1,060	ESXE500E□□471MK25S
	470	18x15	0.074	0.19	1,280	1,025	ESXE500E□□471MM15S
	560	12.5x30	0.059	0.16	1,540	1,235	ESXE500E□□561MK30S
	680	12.5x35	0.048	0.14	1,770	1,420	ESXE500E□□681MK35S
	680	16x20	0.069	0.15	1,370	1,100	ESXE500E□□681ML20S
	820	12.5x40	0.042	0.12	1,980	1,585	ESXE500E□□821MK40S
	820	16x25	0.060	0.13	1,570	1,260	ESXE500E□□821ML25S
	820	18x20	0.057	0.15	1,580	1,265	ESXE500E□□821MM20S
	1,000	16x30	0.050	0.13	1,810	1,450	ESXE500E□□102ML30S
	1,000	18x25	0.049	0.13	1,830	1,465	ESXE500E□□102MM25S
	1,200	16x35	0.043	0.11	2,030	1,830	ESXE500E□□122ML35S
	1,500	16x40	0.035	0.091	2,320	2,090	ESXE500E□□152ML40S

VV (Vdc)	Cap (μF)	Case size φD×L (mm)	Impedance (Ωmax/100kHz)		Rated ripple current (mA Arms/105°C)		Part No.
			20°C	-10°C	100kHz	120Hz	
			50	1,500	18x30	0.043	
	1,800	18x35	0.038	0.099	2,240	2,020	ESXE500E□□182MM35S
	2,200	18x40	0.034	0.088	2,460	2,215	ESXE500E□□222MM40S
	3.3	4x7	11.2	30.2	38	15	ESXE630E□□3R3MD07D
	5.6	5x7	5.1	13.8	61	31	ESXE630E□□5R6ME07D
	6.8	4x11.5	4.3	11.6	73	37	ESXE630E□□6R8MDB5D
	12	5x11.5	2.0	5.4	124	62	ESXE630E□□120MEB5D
	12	6.3x7	3.0	8.1	95	48	ESXE630E□□120MF07D
	18	5x15	1.4	3.8	170	85	ESXE630E□□180ME15D
	27	6.3x11.5	1.2	3.2	180	90	ESXE630E□□270MFB5D
	39	6.3x15	0.66	1.8	270	190	ESXE630E□□390MF15D
	47	8x12	0.56	1.5	305	215	ESXE630E□□470MH12D
	56	10x12.5	0.50	1.4	380	270	ESXE630E□□560MJC5S
	68	8x15	0.36	0.97	410	290	ESXE630E□□680MH15D
	68	10x15	0.35	0.95	500	350	ESXE630E□□680MJ15S
	82	8x20	0.22	0.57	605	425	ESXE630E□□820MH20D
	120	10x20	0.27	0.74	620	435	ESXE630E□□121MJ20S
	150	10x25	0.20	0.53	795	560	ESXE630E□□151MJ25S
	150	12.5x15	0.25	0.67	640	450	ESXE630E□□151MK15S
	180	10x30	0.16	0.42	955	670	ESXE630E□□181MJ30S
	220	12.5x20	0.16	0.42	890	625	ESXE630E□□221MK20S
	220	16x15	0.15	0.41	960	675	ESXE630E□□221ML15S
	270	12.5x25	0.14	0.38	1,040	730	ESXE630E□□271MK25S
	330	18x15	0.13	0.35	1,130	795	ESXE630E□□331MM15S
	390	12.5x30	0.11	0.29	1,270	1,020	ESXE630E□□391MK30S
	390	16x20	0.12	0.32	1,240	995	ESXE630E□□391ML20S
	470	12.5x35	0.091	0.25	1,450	1,160	ESXE630E□□471MK35S
	470	16x25	0.091	0.25	1,440	1,155	ESXE630E□□471ML25S
	560	12.5x40	0.080	0.22	1,610	1,290	ESXE630E□□561MK40S
	560	18x20	0.091	0.25	1,450	1,160	ESXE630E□□561MM20S
	680	16x30	0.065	0.18	1,790	1,435	ESXE630E□□681ML30S
	680	18x25	0.078	0.21	1,650	1,320	ESXE630E□□681MM25S
	820	16x35	0.056	0.15	2,000	1,600	ESXE630E□□821ML35S
	820	18x30	0.065	0.18	1,850	1,480	ESXE630E□□821MM30S
	1,000	16x40	0.049	0.13	2,200	1,780	ESXE630E□□102ML40S
	1,000	18x35	0.061	0.16	1,990	1,595	ESXE630E□□102MM35S
	1,200	18x40	0.046	0.12	2,370	2,135	ESXE630E□□122MM40S
	2.2	4x7	11.0	29.7	38	15	ESXE800E□□2R2MD07D
	3.9	5x7	5.0	13.5	61	24	ESXE800E□□3R9ME07D
	4.7	4x11.5	4.2	11.3	73	29	ESXE800E□□4R7MDB5D
	8.2	5x11.5	1.9	5.2	124	62	ESXE800E□□8R2MEB5D
	8.2	6.3x7	2.9	7.8	95	48	ESXE800E□□8R2MF07D
	12	5x15	1.4	3.7	170	85	ESXE800E□□120ME15D
	18	6.3x11.5	1.1	3.0	180	90	ESXE800E□□180MFB5D
	27	6.3x15	0.64	1.7	270	135	ESXE800E□□270MF15D
	33	8x12	0.54	1.5	305	155	ESXE800E□□330MH12D
	39	10x12.5	0.49	1.3	380	270	ESXE800E□□390MJC5S
	47	8x15	0.36	0.97	410	290	ESXE800E□□470MH15D
	56	8x20	0.28	0.74	605	425	ESXE800E□□560MH20D
	56	10x15	0.34	0.90	500	350	ESXE800E□□560MJ15S
	82	10x20	0.26	0.71	620	435	ESXE800E□□820MJ20S
	100	10x25	0.19	0.51	795	560	ESXE800E□□101MJ25S
	100	12.5x15	0.24	0.64	640	450	ESXE800E□□101MK15S
	150	10x30	0.15	0.41	955	670	ESXE800E□□151MJ30S
	150	12.5x20	0.15	0.41	890	625	ESXE800E□□151MK20S
	180	12.5x25	0.14	0.37	1,040	730	ESXE800E□□181MK25S
	180	16x15	0.14	0.38	960	675	ESXE800E□□181ML15S
	220	18x15	0.13	0.34	1,130	795	ESXE800E□□221MM15S
	270	12.5x30	0.10	0.28	1,270	890	ESXE800E□□271MK30S
	270	16x20	0.11	0.31	1,240	870	

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L (mm)	Impedance (Ωmax/ 100kHz)		Rated ripple current (mA rms/105°C)		Part No.	WV (Vdc)	Cap (μF)	Case size φD×L (mm)	Impedance (Ωmax/ 100kHz)		Rated ripple current (mA rms/105°C)		Part No.
			20°C	-10°C	100kHz	120Hz					20°C	-10°C	100kHz	120Hz	
			80	680	16×40	0.048					0.13	2,200	1,780	ESXE800E□□681ML40S	
	680	18×30	0.063	0.17	1,850	1,480	ESXE800E□□681MM30S	100	10×30	0.15	0.40	955	670	ESXE101E□□101MJ30S	
	820	18×35	0.06	0.16	1,990	1,595	ESXE800E□□821MM35S	100	12.5×20	0.15	0.40	890	625	ESXE101E□□101MK20S	
	1,000	18×40	0.044	0.12	2,370	1,900	ESXE800E□□102MM40S	120	12.5×25	0.13	0.36	1,040	730	ESXE101E□□121MK25S	
	1.5	4×7	10.8	29.2	38	15	ESXE101E□□1R5MD07D	120	16×15	0.14	0.38	960	675	ESXE101E□□121ML15S	
	2.7	5×7	4.9	13.2	61	24	ESXE101E□□2R7ME07D	150	18×15	0.12	0.33	1,130	795	ESXE101E□□151MM15S	
	3.3	4×11.5	4.1	11.1	73	29	ESXE101E□□3R3MDB5D	180	12.5×30	0.10	0.27	1,270	890	ESXE101E□□181MK30S	
	5.6	5×11.5	1.9	5.1	124	62	ESXE101E□□5R6MEB5D	180	16×20	0.11	0.30	1,240	870	ESXE101E□□181ML20S	
	5.6	6.3×7	2.8	7.6	95	48	ESXE101E□□5R6MF07D	220	12.5×35	0.087	0.23	1,450	1,015	ESXE101E□□221MK35S	
	8.2	5×15	1.3	3.6	170	85	ESXE101E□□8R2ME15D	220	16×25	0.086	0.23	1,440	1,010	ESXE101E□□221ML25S	
	12	6.3×11.5	1.1	3.0	180	90	ESXE101E□□120MFB5D	270	12.5×40	0.074	0.20	1,610	1,130	ESXE101E□□271MK40S	
	18	6.3×15	0.62	1.7	270	135	ESXE101E□□180MF15D	270	18×20	0.086	0.23	1,450	1,015	ESXE101E□□271MM20S	
	22	8×12	0.53	1.4	305	155	ESXE101E□□220MH12D	330	16×30	0.062	0.17	1,790	1,255	ESXE101E□□331ML30S	
	27	10×12.5	0.48	1.3	380	190	ESXE101E□□270MJC5S	330	18×25	0.074	0.20	1,650	1,155	ESXE101E□□331MM25S	
	33	8×15	0.35	0.95	410	205	ESXE101E□□330MH15D	390	16×35	0.059	0.16	1,990	1,595	ESXE101E□□391ML35S	
	33	10×15	0.33	0.89	500	250	ESXE101E□□330MJ15S	390	18×30	0.062	0.17	1,850	1,480	ESXE101E□□391MM30S	
	39	8×20	0.27	0.73	605	425	ESXE101E□□390MH20D	470	16×40	0.047	0.13	2,200	1,780	ESXE101E□□471ML40S	
	56	10×20	0.26	0.70	620	435	ESXE101E□□560MJ20S	560	18×35	0.053	0.14	2,000	1,600	ESXE101E□□561MM35S	
	68	10×25	0.19	0.50	795	560	ESXE101E□□680MJ25S	680	18×40	0.043	0.12	2,370	1,900	ESXE101E□□681MM40S	

□□ : Lead forming / Taping code

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance (μF)	Frequency (Hz)					
	50	120	300	1k	10k	100k
1.5 to 4.7	0.30	0.40	0.50	0.70	0.80	1.00
5.6 to 33	0.40	0.50	0.60	0.80	0.90	1.00
39 to 330	0.60	0.70	0.80	0.90	0.95	1.00
390 to 1,000	0.65	0.80	0.90	0.98	1.00	1.00
1,200	0.80	0.90	0.95	0.98	1.00	1.00

Mouser Electronics

Authorized Distributor

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Chemi-Con:

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[SXE100VB271M18X20LL](#) [ESXE6R3ELL561MH15D](#) [ESXE630ELL331MM13S](#) [ESXE250ELL221MH15D](#)
[SXE50VB121M8X20FT](#) [SXE100VB101M12X20LL](#) [ESXE101ELL471ML40S](#) [ESXE250ETD122MM13S](#)
[SXE100VB33RM8X15LL](#) [ESXE100ELL222MK23S](#) [SXE80VB33RM8X12LL](#) [SXE80VB471M18X25LL](#)
[ESXE350ELL221MH20D](#) [SXE80VB391M12X40LL](#) [ESXE101ELL121ML13S](#) [ESXE800ELL560MJ13S](#)
[SXE80VB56RM10X15LL](#) [SXE35VB681M12X25LL](#) [SXE80VB471M16X30LL](#) [SXE63VB561M12X40LL](#)
[SXE100VB22RM8X12LL](#) [SXE25VB821M12X20LL](#) [ESXE800ELL820MJ20S](#) [SXE10VB222M12X25LL](#)
[ESXE101ETD180MF15D](#) [ESXE800ELL330MH12D](#) [SXE25VB221M8X15LL](#) [SXE100VB681M18X40LL](#)
[ESXE101ELL331MM23S](#) [ESXE6R3ELL121MF07D](#) [ESXE101ELL330MH15D](#) [ESXE500ETC121MH20D](#)
[SXE100VB5R6M5X11FTX](#) [ESXE6R3ELL562ML23S](#) [SXE25VB821M10X30LL](#) [ESXE250ELL821MJ30S](#)
[ESXE160ELL102MJ30S](#) [SXE100VB5R6M6X7FTX](#) [SXE80VB82RM10X20LL](#) [SXE6.3VB562M16X25LL](#)
[SXE100VB22RM8X12FT](#) [SXE63VB331M18X15LL](#) [SXE50VB681M16X20LL](#) [ESXE250ELL821MK20S](#)
[SXE35VB101M8X12FT](#) [ESXE800ELL271MK30S](#) [SXE80VB101M12X15LL](#) [ESXE800ELL471ML30S](#)
[ESXE350ETC101MH12D](#) [ESXE101ELL271MM20S](#) [SXE100VB121M16X15LL](#) [ESXE500ELL681ML20S](#)
[ESXE350ELL681MK23S](#) [SXE16VB331M8X15LL](#) [ESXE350ELL121MJC3S](#) [ESXE101ELL220MH12D](#)
[SXE100VB18RM6X15FTX](#) [ESXE800ELL391MK40S](#) [ESXE500ELL331MJ30S](#) [SXE100VB68RM12X15LL](#)
[ESXE630ELL561MK40S](#) [ESXE101ELL680MK13S](#) [SXE25VB122M18X15FT](#) [SXE100VB471M16X40LL](#)
[ESXE101ELL101MK20S](#) [ESXE800ELL681MM30S](#) [ESXE101ELL271MK40S](#) [SXE6.3VB562M18X20LL](#)
[SXE50VB471M12X25FT](#) [ESXE101ELL270MJC3S](#) [SXE6.3VB222M12X20FT](#) [SXE80VB151M12X20LL](#)
[ESXE800ETD8R2MF07D](#) [SXE35VB221M8X20LL](#) [ESXE350ELL151MH15D](#) [ESXE6R3ELL562MM20S](#)
[ESXE250ELL122MM13S](#) [SXE35VB151M8X15LL](#) [SXE100VB271M12X40LL](#) [SXE25VB122M18X15LL](#)
[ESXE100ELL471MH15D](#) [ESXE101ETC220MH12D](#) [SXE100VB331M18X25LL](#) [ESXE500ELL222MM40S](#)