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KMH Series

KMH SERIES
Engineering Bulletin Mar 07



- Snap Mount
- Large Capacitance
- High CV
- High Ripple
- RoHS Compliant
- +105°C Maximum Temperature



The KMH series capacitors are the standard +105°C , large capacitance, snap-in capacitors from United Chemi-Con. The load life for the KMH series is 2,000 hours at +105°C with the rated ripple current applied. The very high CV values and ripple current capabilities make these capacitors ideal for use in power supply filter circuits. The KMH capacitors are available in 2 or 4-pin snap-in styles and 4 or 5-pin straight terminals. The KMH series is RoHS compliant offering Pb-free construction.

The standard KMH series capacitors are *not* solvent proof. Refer to guidelines and precautions on the website for usage and installation conditions recommended for United Chemi-Con products.

Summary of Specifications

- PC board 2 or 4-pin snap-in; optional 4 or 5-pin straight terminals.
- Capacitance range: 47 to 220,000µF.
- Voltage range: 6.3 to 450VDC.
- Category temperature range: -40°C to +105°C for 6.3 to 100V; -25°C to +105°C for 160 to 450V.
- Leakage current: 0.02CV(µA) or 3mA, whichever is smaller, after 5 minutes at +20°C.
- Standard capacitance tolerance: ±20%
- Nominal case size (D × L): 22 × 20mm to 40 × 80mm.
- Rated lifetime: 2,000 hours at +105°C with the rated ripple current applied.

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KMH Specifications - Snap Mount

Item	Characteristics																																													
Category Temperature Range	− 40 to +105°C for 6.3 to 100VDC; − 25 to +105°C for 160 to 450VDC																																													
Rated Voltage Range	6.3 to 450VDC																																													
Capacitance Range	47 to 220,000μF																																													
Capacitance Tolerance	± 20% (M) at +20°C, 120Hz																																													
Leakage Current	I = 0.02CV (μA) or 3mA, whichever is smaller, after 5 minutes at +20°C. Where I = Max. leakage current (μA), C = Nominal capacitance (μF) and V = Rated voltage (V)																																													
Dissipation Factor (Tan δ)	At +20°C, 120Hz <table><tr><td>Rated Voltage (V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63-100</td><td>160-250</td><td>315-450</td></tr><tr><td>Tan δ (DF) Max.†</td><td>0.60</td><td>0.50</td><td>0.40</td><td>0.30</td><td>0.25</td><td>0.20</td><td>0.15</td><td>0.10*</td><td>0.15</td></tr></table> *0.15 maximum for 35mm and 40mm diameter or 20mm in length. †For rated voltages ≤63V, values are not valid for case sizes >35mm in diameter or >50mm in length.	Rated Voltage (V)	6.3	10	16	25	35	50	63-100	160-250	315-450	Tan δ (DF) Max.†	0.60	0.50	0.40	0.30	0.25	0.20	0.15	0.10*	0.15																									
Rated Voltage (V)	6.3	10	16	25	35	50	63-100	160-250	315-450																																					
Tan δ (DF) Max.†	0.60	0.50	0.40	0.30	0.25	0.20	0.15	0.10*	0.15																																					
Low Temperature Characteristics	At 120Hz, impedance (Z) ratio between the − 25°C or − 40°C value and +20°C value shall not exceed the values given below. <table><tr><td>Rated Voltage (V)</td><td>6.3-16</td><td>25</td><td>35</td><td>50, 63</td><td>80, 100</td><td>160-400</td><td>450</td></tr><tr><td>Z (−25°C) / Z (+20°C)</td><td>4</td><td>3</td><td>3</td><td>2</td><td>2</td><td>4</td><td>8</td></tr><tr><td>Z (−40°C) / Z (+20°C)</td><td>15</td><td>10</td><td>8</td><td>6</td><td>5</td><td>—</td><td>—</td></tr></table>	Rated Voltage (V)	6.3-16	25	35	50, 63	80, 100	160-400	450	Z (−25°C) / Z (+20°C)	4	3	3	2	2	4	8	Z (−40°C) / Z (+20°C)	15	10	8	6	5	—	—																					
Rated Voltage (V)	6.3-16	25	35	50, 63	80, 100	160-400	450																																							
Z (−25°C) / Z (+20°C)	4	3	3	2	2	4	8																																							
Z (−40°C) / Z (+20°C)	15	10	8	6	5	—	—																																							
Rated Ripple Current Multipliers	Ambient Temperature (°C) <table><tr><td>+45°C</td><td>+60°C</td><td>+70°C</td><td>+85°C</td><td>+105°C</td></tr><tr><td>2.64</td><td>2.23</td><td>2.12</td><td>1.73</td><td>1.00</td></tr></table> Frequency (Hz) <table><tr><td>DC Rated Voltage</td><td>50Hz</td><td>120Hz</td><td>300Hz</td><td>1kHz</td><td>10kHz</td><td>100kHz</td></tr><tr><td>6.3-50V</td><td>0.95</td><td>1.00</td><td>1.03</td><td>1.05</td><td>1.08</td><td>1.08</td></tr><tr><td>63-100V</td><td>0.92</td><td>1.00</td><td>1.07</td><td>1.13</td><td>1.19</td><td>1.20</td></tr><tr><td>160-250V</td><td>0.81</td><td>1.00</td><td>1.17</td><td>1.32</td><td>1.45</td><td>1.50</td></tr><tr><td>315-450V</td><td>0.77</td><td>1.00</td><td>1.16</td><td>1.30</td><td>1.41</td><td>1.43</td></tr></table>	+45°C	+60°C	+70°C	+85°C	+105°C	2.64	2.23	2.12	1.73	1.00	DC Rated Voltage	50Hz	120Hz	300Hz	1kHz	10kHz	100kHz	6.3-50V	0.95	1.00	1.03	1.05	1.08	1.08	63-100V	0.92	1.00	1.07	1.13	1.19	1.20	160-250V	0.81	1.00	1.17	1.32	1.45	1.50	315-450V	0.77	1.00	1.16	1.30	1.41	1.43
+45°C	+60°C	+70°C	+85°C	+105°C																																										
2.64	2.23	2.12	1.73	1.00																																										
DC Rated Voltage	50Hz	120Hz	300Hz	1kHz	10kHz	100kHz																																								
6.3-50V	0.95	1.00	1.03	1.05	1.08	1.08																																								
63-100V	0.92	1.00	1.07	1.13	1.19	1.20																																								
160-250V	0.81	1.00	1.17	1.32	1.45	1.50																																								
315-450V	0.77	1.00	1.16	1.30	1.41	1.43																																								
Endurance (Load Life)	The following specifications shall be satisfied when the capacitors are restored to +20°C after subjecting them to DC voltage for 2,000 hours at +105°C with the rated ripple current applied. The sum of the DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors. Capacitance change: ≤ ± 20% of initial measured value Tan δ (DF) : ≤ 200% of initial specified value Leakage current : ≤ 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. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change: ≤ ± 20% of initial measured value Tan δ (DF) : ≤ 150% of initial specified value Leakage current : ≤ initial specified value																																													

KMH Series

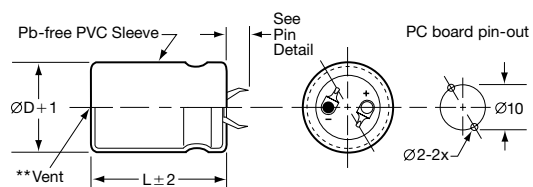
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Diagram of Dimensions - Snap Mount

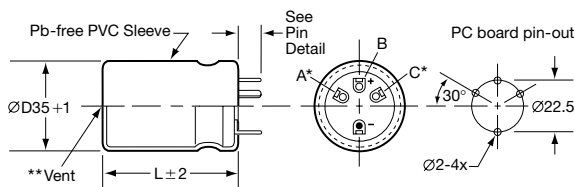
Snap Mount

Unit: mm

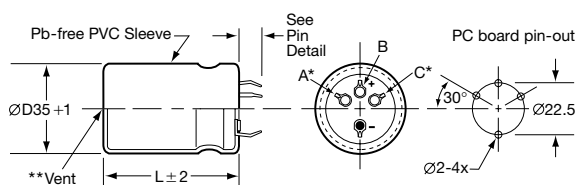
Types VSN & VNN $\varnothing 22 \sim \varnothing 35$



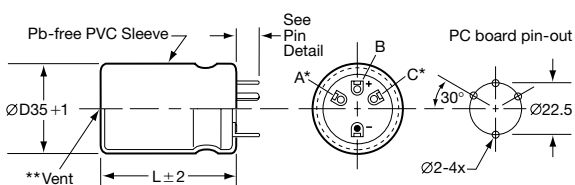
Type VRD $\varnothing 35$



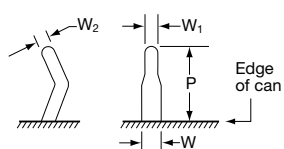
Type VND $\varnothing 35$ & $\varnothing 40$



Type VQD $\varnothing 35$

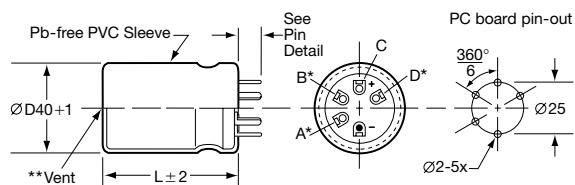


VS & VN Pin Dimensions



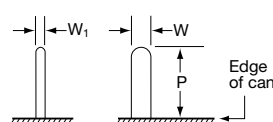
Type	P	W	W ₁	W ₂
VSN $\varnothing 22 \sim \varnothing 30$	4.0 ± 0.5	1.5 ± 0.2	1.0	1.0
VSN $\varnothing 35$	3.5 ± 0.5			
VNN $\varnothing 22 \sim \varnothing 35$	5.8 ± 1.0			
VND $\varnothing 35 \sim \varnothing 40$	5.8 ± 1.0			

Type VQT $\varnothing 40$

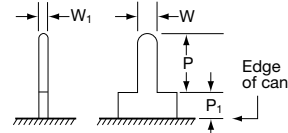


VR & VQ Pin Dimensions

VR Straight Pin



VQ Standoff Pin



Type	P	P ₁	W	W ₁
Straight Pin (VR)	5.50 ± 1.0	—	1.5 ± 0.1	0.7
Standoff Pin (VQ)	3.75 ± 1.0	2.0 max.		

CAUTION:

*Use the blank terminals for mechanical support only. The blank terminals must not be connected to a solder trace on the PC board, but be electrically isolated from the negative or positive terminal.

**Vent may be located either on the bottom or side of the can.

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Part Numbering System for KMH Series When ordering, always specify complete 18-field global part number.



- 9 Supplement Code.** Field 18.
All construction options listed have Sn100% terminal plating.
S = PET sleeve without end disk.
W = PET sleeve with end disk.
M = Pb-free PVC sleeve without end disk.
T = Pb-free PVC sleeve with end disk.
- 8 Case Size.** Fields 15, 16 and 17.
The single letter diameter code is inserted in field 15.
P = Ø22mm
Q = Ø25.4mm
R = Ø30mm
A = Ø35mm
B = Ø40mm

The double digit length code is inserted in fields 16 and 17.
20 = 20mm
25 = 25mm
30 = 30mm
35 = 35mm
40 = 40mm
45 = 45mm
50 = 50mm
63 = 63mm
80 = 80mm
- 7 Capacitance Tolerance.** Field 14.
M = ±20%
- 6 Capacitance.** Fields 11, 12 and 13.
Expressed in Microfarads. The first two digits are significant figures inserted in fields 11 and 12, and the third digit inserted in field 13 indicates the number of zeros for capacitance of 10µF or more. R indicates the decimal point for capacitance less than 10µF (e.g. 5R6 = 5.6µF; 560 = 56µF; 561 = 560µF; 562 = 5,600µF; 563 = 56,000µF).
- 5 Dummy Terminals.** Field 10.
N = No dummy terminals.
D = 2 dummy terminals.
T = 3 dummy terminals.
- 4 Terminal Type.** Fields 8 and 9.
VS = Snap-in pins, 4.0mm in length, 3.5mm for Ø35 only.
VN = Snap-in pins, 5.8mm in length.
VR = Straight pins.
VQ = Straight standoff pins.
- 3 DC Rated Voltage.** Fields 5, 6 and 7.
Expressed in Volts. The first two digits are significant figures inserted in fields 5 and 6, and the third digit inserted in field 7 indicates the number of zeros for rated voltage of 10VDC or more. R indicates the decimal point for rated voltage less than 10VDC (e.g. 2R0 = 2.0VDC; 200 = 20VDC; 201 = 200VDC).
Rule Exception: Coding for rated voltage 315VDC = 3B1.
- 2 Series Name.** Fields 2, 3 and 4.
Enter the 3-letter/digit series name in fields 2, 3 and 4. If the series name is only 2 letters/digits, place a dash in field 4. For a series name with more than 3 letters/digits, refer to the individual series for the appropriate 3-field series name.
- 1 Capacitor Type.** Field 1.
Aluminum Electrolytic Capacitor (Polar).

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
6.3 Volts 8 Volts Surge	12,000	EKM6R3VSN123MP25T	22 × 25	P25	0.083	1.54
	15,000	EKM6R3VSN153MP25T	22 × 25	P25	0.066	1.72
	18,000	EKM6R3VSN183MP30T	22 × 30	P30	0.055	1.95
	22,000	EKM6R3VSN223MP35T	22 × 35	P35	0.045	2.23
	27,000	EKM6R3VSN273MP40T	22 × 40	P40	0.037	2.54
	33,000	EKM6R3VSN333MP45T	22 × 45	P45	0.03	2.88
	18,000	EKM6R3VSN183MQ25T	25.4 × 25	Q25	0.055	1.96
	22,000	EKM6R3VSN223MQ30T	25.4 × 30	Q30	0.045	2.25
	27,000	EKM6R3VSN273MQ35T	25.4 × 35	Q35	0.037	2.57
	33,000	EKM6R3VSN333MQ40T	25.4 × 40	Q40	0.03	2.93
	39,000	EKM6R3VSN393MQ40T	25.4 × 40	Q40	0.026	3.18
	47,000	EKM6R3VSN473MQ50T	25.4 × 50	Q50	0.021	3.69
	22,000	EKM6R3VSN223MR25T	30 × 25	R25	0.045	2.28
	27,000	EKM6R3VSN273MR25T	30 × 25	R25	0.037	2.52
	33,000	EKM6R3VSN333MR30T	30 × 30	R30	0.03	2.89
	39,000	EKM6R3VSN393MR35T	30 × 35	R35	0.026	3.26
	47,000	EKM6R3VSN473MR40T	30 × 40	R40	0.021	3.69
	56,000	EKM6R3VSN563MR45T	30 × 45	R45	0.018	4.16
	68,000	EKM6R3VSN683MR50T	30 × 50	R50	0.015	4.71
	33,000	EKM6R3VSN333MA25T	35 × 25	A25	0.03	2.93
	39,000	EKM6R3VSN393MA30T	35 × 30	A30	0.026	3.4
	47,000	EKM6R3VSN473MA30T	35 × 30	A30	0.021	3.73
	56,000	EKM6R3VSN563MA35T	35 × 35	A35	0.018	4.12
	68,000	EKM6R3VSN683MA40T	35 × 40	A40	0.015	4.69
	82,000	EKM6R3VSN823MA45T	35 × 45	A45	0.012	5.32
	120,000	EKM6R3VSN124MA63T	35 × 63	A63	0.011	6.9
	180,000	EKM6R3VSN184MA80T	35 × 80	A80	0.008	9.04
	56,000	EKM6R3VQT563MB25T	40 × 25	B25	0.026	3.87
	68,000	EKM6R3VQT683MB30T	40 × 30	B30	0.02	4.47
	82,000	EKM6R3VQT823MB35T	40 × 35	B35	0.018	5.09
	100,000	EKM6R3VQT104MB40T	40 × 40	B40	0.014	5.79
	150,000	EKM6R3VQT154MB50T	40 × 50	B50	0.011	7.54
	180,000	EKM6R3VQT184MB63T	40 × 63	B63	0.009	8.82
	220,000	EKM6R3VQT224MB80T	40 × 80	B80	0.008	10.61
10 Volts 13 Volts Surge	10,000	EKM100VSN103MP25T	22 × 25	P25	0.083	1.55
	12,000	EKM100VSN123MP30T	22 × 30	P30	0.069	1.77
	15,000	EKM100VSN153MP30T	22 × 30	P30	0.055	1.97
	18,000	EKM100VSN183MP35T	22 × 35	P35	0.046	2.21
	22,000	EKM100VSN223MP40T	22 × 40	P40	0.038	2.51
	27,000	EKM100VSN273MP50T	22 × 50	P50	0.031	2.93
	15,000	EKM100VSN153MQ25T	25.4 × 25	Q25	0.055	1.96
	18,000	EKM100VSN183MQ30T	25.4 × 30	Q30	0.046	2.23
	22,000	EKM100VSN223MQ35T	25.4 × 35	Q35	0.038	2.54
	27,000	EKM100VSN273MQ40T	25.4 × 40	Q40	0.031	2.9
	33,000	EKM100VSN333MQ45T	25.4 × 45	Q45	0.025	3.3
	39,000	EKM100VSN393MQ50T	25.4 × 50	Q50	0.021	3.68
	22,000	EKM100VSN223MR25T	30 × 25	R25	0.038	2.4
	27,000	EKM100VSN273MR30T	30 × 30	R30	0.031	2.87
	33,000	EKM100VSN333MR35T	30 × 35	R35	0.025	3.28
	39,000	EKM100VSN393MR40T	30 × 40	R40	0.021	3.69
	47,000	EKM100VSN473MR45T	30 × 45	R45	0.018	4.17
	56,000	EKM100VSN563MR50T	30 × 50	R50	0.015	4.68
	27,000	EKM100VSN273MA25T	35 × 25	A25	0.031	2.73
	33,000	EKM100VSN333MA30T	35 × 30	A30	0.025	3.16
	39,000	EKM100VSN393MA30T	35 × 30	A30	0.021	3.43
	47,000	EKM100VSN473MA35T	35 × 35	A35	0.018	3.76
	56,000	EKM100VSN563MA40T	35 × 40	A40	0.015	4.67
	68,000	EKM100VSN683MA50T	35 × 50	A50	0.012	5.46

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
10 Volts 13 Volts Surge	100,000	EKM6H100VSN104MA63T	35 × 63	A63	0.011	6.9
	120,000	EKM6H100VSN124MA80T	35 × 80	A80	0.009	8.08
	39,000	EKM6H100VQT393MB25T	40 × 25	B25	0.027	3.54
	56,000	EKM6H100VQT563MB30T	40 × 30	B30	0.021	4.44
	68,000	EKM6H100VQT683MB35T	40 × 35	B35	0.018	5.08
	82,000	EKM6H100VQT823MB40T	40 × 40	B40	0.015	5.75
	120,000	EKM6H100VQT124MB50T	40 × 50	B50	0.012	7.39
	150,000	EKM6H100VQT154MB63T	40 × 63	B63	0.009	8.82
16 Volts 20 Volts Surge	180,000	EKM6H100VQT184MB80T	40 × 80	B80	0.008	10.51
	6,800	EKM6H160VSN682MP25T	22 × 25	P25	0.098	1.57
	10,000	EKM6H160VSN103MP30T	22 × 30	P30	0.066	1.97
	12,000	EKM6H160VSN123MP35T	22 × 35	P35	0.055	2.22
	15,000	EKM6H160VSN153MP40T	22 × 40	P40	0.044	2.55
	18,000	EKM6H160VSN183MP45T	22 × 45	P45	0.037	2.87
	10,000	EKM6H160VSN103MQ25T	25.4 × 25	Q25	0.066	1.97
	12,000	EKM6H160VSN123MQ30T	25.4 × 30	Q30	0.055	2.24
	15,000	EKM6H160VSN153MQ35T	25.4 × 35	Q35	0.044	2.58
	18,000	EKM6H160VSN183MQ40T	25.4 × 40	Q40	0.037	2.92
	22,000	EKM6H160VSN223MQ45T	25.4 × 45	Q45	0.03	3.32
	27,000	EKM6H160VSN273MQ50T	25.4 × 50	Q50	0.025	3.78
	12,000	EKM6H160VSN123MR25T	30 × 25	R25	0.055	2.45
	15,000	EKM6H160VSN153MR25T	30 × 25	R25	0.044	2.52
	18,000	EKM6H160VSN183MR30T	30 × 30	R30	0.037	2.88
	22,000	EKM6H160VSN223MR35T	30 × 35	R35	0.03	3.29
	27,000	EKM6H160VSN273MR40T	30 × 40	R40	0.025	3.77
	33,000	EKM6H160VSN333MR45T	30 × 45	R45	0.02	4.3
	39,000	EKM6H160VSN393MR50T	30 × 50	R50	0.017	4.81
	18,000	EKM6H160VSN183MA25T	35 × 25	A25	0.037	2.92
	22,000	EKM6H160VSN223MA25T	35 × 25	A25	0.03	3.23
	27,000	EKM6H160VSN273MA30T	35 × 30	A30	0.025	3.45
	33,000	EKM6H160VSN333MA35T	35 × 35	A35	0.02	4.26
	39,000	EKM6H160VSN393MA40T	35 × 40	A40	0.017	4.79
	47,000	EKM6H160VSN473MA45T	35 × 45	A45	0.014	5.43
	68,000	EKM6H160VSN683MA63T	35 × 63	A63	0.012	6.36
	100,000	EKM6H160VSN104MA80T	35 × 80	A80	0.009	8.25
	33,000	EKM6H160VQT333MB25T	40 × 25	B25	0.027	3.64
	39,000	EKM6H160VQT333MB30T	40 × 30	B30	0.021	4.15
	47,000	EKM6H160VQT333MB35T	40 × 35	B35	0.018	4.72
	56,000	EKM6H160VQT333MB40T	40 × 40	B40	0.015	5.31
	82,000	EKM6H160VQT333MB50T	40 × 50	B50	0.012	6.83
	100,000	EKM6H160VQT333MB63T	40 × 63	B63	0.010	8.05
	150,000	EKM6H160VQT333MB80T	40 × 80	B80	0.008	10.73
25 Volts 32 Volts Surge	4,700	EKM6H250VSN472MP25T	22 × 25	P25	0.106	1.5
	5,600	EKM6H250VSN562MP25T	22 × 25	P25	0.089	1.63
	6,800	EKM6H250VSN682MP30T	22 × 30	P30	0.073	1.86
	8,200	EKM6H250VSN822MP35T	22 × 35	P35	0.061	2.11
	10,000	EKM6H250VSN103MP40T	22 × 40	P40	0.05	2.39
	12,000	EKM6H250VSN123MP45T	22 × 45	P45	0.041	2.69
	6,800	EKM6H250VSN682MQ25T	25.4 × 25	Q25	0.073	1.87
	8,200	EKM6H250VSN822MQ30T	25.4 × 30	Q30	0.061	2.12
	10,000	EKM6H250VSN103MQ35T	25.4 × 35	Q35	0.05	2.42
	12,000	EKM6H250VSN123MQ40T	25.4 × 40	Q40	0.041	2.74
	15,000	EKM6H250VSN153MQ45T	25.4 × 45	Q45	0.033	3.15
	18,000	EKM6H250VSN183MQ50T	25.4 × 50	Q50	0.028	3.54
	8,200	EKM6H250VSN822MR25T	30 × 25	R25	0.061	2.15
	10,000	EKM6H250VSN103MR25T	30 × 25	R25	0.05	2.37
	12,000	EKM6H250VSN123MR30T	30 × 30	R30	0.041	2.7
	15,000	EKM6H250VSN153MR35T	30 × 35	R35	0.033	3.13

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
25 Volts 32 Volts Surge	18,000	EKM250VSN183MR40T	30 × 40	R40	0.028	3.54
	22,000	EKM250VSN223MR45T	30 × 45	R45	0.023	4.04
	12,000	EKM250VSN123MA25T	35 × 25	A25	0.041	2.74
	15,000	EKM250VSN153MA30T	35 × 30	A30	0.033	3.27
	18,000	EKM250VSN183MA30T	35 × 30	A30	0.028	3.58
	22,000	EKM250VSN223MA35T	35 × 35	A35	0.023	3.64
	27,000	EKM250VSN273MA45T	35 × 45	A45	0.018	4.73
	33,000	EKM250VSN333MA50T	35 × 50	A50	0.015	5.39
	47,000	EKM250VSN473MA63T	35 × 63	A63	0.012	6.11
	68,000	EKM250VSN683MA80T	35 × 80	A80	0.009	7.86
	18,000	EKM250VQT183MB25T	40 × 25	B25	0.029	3.11
	27,000	EKM250VQT273MB30T	40 × 30	B30	0.021	3.98
	33,000	EKM250VQT333MB35T	40 × 35	B35	0.018	4.57
	39,000	EKM250VQT393MB40T	40 × 40	B40	0.015	5.12
	47,000	EKM250VQT473MB50T	40 × 50	B50	0.013	5.97
	68,000	EKM250VQT683MB63T	40 × 63	B63	0.010	7.67
	82,000	EKM250VQT823MB80T	40 × 80	B80	0.008	9.16
35 Volts 44 Volts Surge	3,300	EKM350VSN332MP25T	22 × 25	P25	0.126	1.4
	3,900	EKM350VSN392MP30T	22 × 30	P30	0.106	1.57
	4,700	EKM350VSN472MP30T	22 × 30	P30	0.088	1.72
	5,600	EKM350VSN562MP35T	22 × 35	P35	0.074	1.95
	6,800	EKM350VSN682MP40T	22 × 40	P40	0.061	2.2
	8,200	EKM350VSN822MP50T	22 × 50	P50	0.051	2.55
	4,700	EKM350VSN472MQ25T	25.4 × 25	Q25	0.088	1.8
	5,600	EKM350VSN562MQ30T	25.4 × 30	Q30	0.074	1.96
	6,800	EKM350VSN682MQ35T	25.4 × 35	Q35	0.061	2.23
	8,200	EKM350VSN822MQ40T	25.4 × 40	Q40	0.051	2.53
	10,000	EKM350VSN103MQ45T	25.4 × 45	Q45	0.041	2.87
	12,000	EKM350VSN123MQ50T	25.4 × 50	Q50	0.035	3.24
	5,600	EKM350VSN562MR25T	30 × 25	R25	0.074	1.99
	6,800	EKM350VSN682MR25T	30 × 25	R25	0.061	2.19
	8,200	EKM350VSN822MR30T	30 × 30	R30	0.051	2.75
	10,000	EKM350VSN103MR35T	30 × 35	Q35	0.041	2.9
	12,000	EKM350VSN123MR40T	30 × 40	R40	0.035	3.23
	15,000	EKM350VSN153MR45T	30 × 45	R45	0.028	3.72
	8,200	EKM350VSN822MA25T	35 × 25	A25	0.051	2.75
	10,000	EKM350VSN103MA30T	35 × 30	A30	0.041	2.91
	12,000	EKM350VSN123MA30T	35 × 30	A30	0.035	2.99
	15,000	EKM350VSN153MA35T	35 × 35	A35	0.028	3.67
	18,000	EKM350VSN183MA40T	35 × 40	A40	0.023	4.37
	22,000	EKM350VSN223MA50T	35 × 50	A50	0.019	4.92
	33,000	EKM350VSN333MA63T	35 × 63	A63	0.012	5.60
	39,000	EKM350VSN393MA80T	35 × 80	A80	0.010	6.52
	12,000	EKM350VQT123MB25T	40 × 25	B25	0.030	2.78
	18,000	EKM350VQT183MB30T	40 × 30	B30	0.022	3.56
	22,000	EKM350VQT223MB35T	40 × 35	B35	0.019	4.09
	27,000	EKM350VQT273MB40T	40 × 40	B40	0.016	4.66
	33,000	EKM350VQT333MB50T	40 × 50	B50	0.013	5.48
	47,000	EKM350VQT473MB63T	40 × 63	B63	0.010	6.98
	56,000	EKM350VQT563MB80T	40 × 80	B80	0.008	8.29
50 Volts 63 Volts Surge	1,800	EKM500VSN182MP25T	22 × 25	P25	0.184	1.33
	2,700	EKM500VSN272MP30T	22 × 30	P30	0.123	1.69
	3,300	EKM500VSN332MP35T	22 × 35	P35	0.10	1.93
	3,900	EKM500VSN392MP40T	22 × 40	P40	0.085	2.16
	4,700	EKM500VSN472MP45T	22 × 45	P45	0.071	2.43
	5,600	EKM500VSN562MP50T	22 × 50	P50	0.059	2.75
	2,700	EKM500VSN272MQ25T	25.4 × 25	Q25	0.123	1.7
	3,300	EKM500VSN332MQ30T	25.4 × 30	Q30	0.10	1.85

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

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Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
50 Volts 63 Volts Surge	3,900	EKM6H500VSN392MQ35T	25.4 × 35	Q35	0.085	2.18
	4,700	EKM6H500VSN472MQ35T	25.4 × 35	Q35	0.071	2.39
	5,600	EKM6H500VSN562MQ40T	25.4 × 40	Q40	0.059	2.7
	6,800	EKM6H500VSN682MQ50T	25.4 × 50	Q50	0.049	3.3
	3,900	EKM6H500VSN392MR25T	30 × 25	R25	0.085	1.95
	4,700	EKM6H500VSN472MR30T	30 × 30	R30	0.071	2.25
	5,600	EKM6H500VSN562MR35T	30 × 35	R35	0.059	2.76
	6,800	EKM6H500VSN682MR40T	30 × 40	R40	0.049	3.3
	8,200	EKM6H500VSN822MR45T	30 × 45	R45	0.04	3.6
	10,000	EKM6H500VSN103MR50T	30 × 50	R50	0.033	4.04
	4,700	EKM6H500VSN472MA25T	35 × 25	A25	0.071	2.48
	5,600	EKM6H500VSN562MA25T	35 × 25	A25	0.059	2.7
	6,800	EKM6H500VSN682MA30T	35 × 30	A30	0.049	3.25
	8,200	EKM6H500VSN822MA35T	35 × 35	A35	0.04	3.55
	10,000	EKM6H500VSN103MA40T	35 × 40	A40	0.033	4.03
	12,000	EKM6H500VSN123MA45T	35 × 45	A45	0.028	4.55
	18,000	EKM6H500VSN183MA63T	35 × 63	A63	0.014	4.63
	27,000	EKM6H500VSN273MA80T	35 × 80	A80	0.011	6.06
	8,200	EKM6H500VQT822MB25T	40 × 25	B25	0.035	2.57
	10,000	EKM6H500VQT103MB30T	40 × 30	B30	0.027	2.97
	12,000	EKM6H500VQT123MB35T	40 × 35	B35	0.023	3.37
	15,000	EKM6H500VQT153MB40T	40 × 40	B40	0.019	3.89
	22,000	EKM6H500VQT223MB50T	40 × 50	B50	0.015	5.0
	27,000	EKM6H500VQT273MB63T	40 × 63	B63	0.012	5.92
	39,000	EKM6H500VQT393MB80T	40 × 80	B80	0.009	7.74
63 Volts 79 Volts Surge	1,200	EKM6H630VSN122MP25T	22 × 25	P25	0.207	1.19
	1,500	EKM6H630VSN152MP25T	22 × 25	P25	0.166	1.33
	1,800	EKM6H630VSN182MP30T	22 × 30	P30	0.138	1.51
	2,200	EKM6H630VSN222MP35T	22 × 35	P35	0.113	1.73
	2,700	EKM6H630VSN272MP40T	22 × 40	P40	0.092	1.97
	3,300	EKM6H630VSN332MP50T	22 × 50	P50	0.075	2.29
	1,800	EKM6H630VSN182MQ25T	25.4 × 25	Q25	0.138	1.52
	2,200	EKM6H630VSN222MQ30T	25.4 × 30	Q30	0.113	1.74
	2,700	EKM6H630VSN272MQ35T	25.4 × 35	Q35	0.092	1.99
	3,300	EKM6H630VSN332MQ40T	25.4 × 40	Q40	0.075	2.27
	3,900	EKM6H630VSN392MQ45T	25.4 × 45	Q45	0.064	2.54
	4,700	EKM6H630VSN472MQ50T	25.4 × 50	Q50	0.053	2.86
	2,700	EKM6H630VSN272MR25T	30 × 25	R25	0.092	1.76
	3,300	EKM6H630VSN332MR30T	30 × 30	R30	0.075	2.24
	3,900	EKM6H630VSN392MR35T	30 × 35	R35	0.064	2.55
	4,700	EKM6H630VSN472MR40T	30 × 40	R40	0.053	2.86
	5,600	EKM6H630VSN562MR45T	30 × 45	R45	0.044	3.22
	6,800	EKM6H630VSN682MR50T	30 × 50	R50	0.037	3.65
	3,300	EKM6H630VSN332MA25T	35 × 25	A25	0.075	2.06
	3,900	EKM6H630VSN392MA25T	35 × 25	A25	0.064	2.24
	4,700	EKM6H630VSN472MA30T	35 × 30	A30	0.053	2.79
	5,600	EKM6H630VSN562MA35T	35 × 35	A35	0.044	3.19
	6,800	EKM6H630VSN682MA40T	35 × 40	A40	0.037	3.64
	8,200	EKM6H630VSN822MA45T	35 × 45	A45	0.03	3.9
	10,000	EKM6H630VSN103MA50T	35 × 50	A50	0.025	4.4
	15,000	EKM6H630VSN153MA63T	35 × 63	A63	0.014	4.88
	18,000	EKM6H630VSN183MA80T	35 × 80	A80	0.012	5.72
	5,600	EKM6H630VQT562MB25T	40 × 25	B25	0.038	2.45
	8,200	EKM6H630VQT822MB30T	40 × 30	B30	0.028	3.1
	10,000	EKM6H630VQT103MB35T	40 × 35	B35	0.026	3.56
	12,000	EKM6H630VQT123MB40T	40 × 40	B40	0.02	4.01
	15,000	EKM6H630VQT153MB50T	40 × 50	B50	0.016	4.77
	18,000	EKM6H630VQT183MB63T	40 × 63	B63	0.013	5.58
	27,000	EKM6H630VQT273MB80T	40 × 80	B80	0.010	7.43

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

*Refer to diagram of dimensions for detailed case size specifications.

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Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
80 Volts 100 Volts Surge	820	EKM H800VSN821MP25T	22 × 25	P25	0.303	1.11
	1,000	EKM H800VSN102MP25T	22 × 25	P25	0.249	1.22
	1,200	EKM H800VSN122MP30T	22 × 30	P30	0.207	1.38
	1,500	EKM H800VSN152MP35T	22 × 35	P35	0.166	1.59
	1,800	EKM H800VSN182MP40T	22 × 40	P40	0.138	1.8
	2,200	EKM H800VSN222MP45T	22 × 45	P45	0.113	2.04
	1,200	EKM H800VSN122MQ25T	25.4 × 25	Q25	0.207	1.39
	1,500	EKM H800VSN152MQ30T	25.4 × 30	Q30	0.166	1.61
	1,800	EKM H800VSN182MQ30T	25.4 × 30	Q30	0.138	1.76
	2,200	EKM H800VSN222MQ35T	25.4 × 35	Q35	0.113	2.01
	2,700	EKM H800VSN272MQ45T	25.4 × 45	Q45	0.092	2.36
	3,300	EKM H800VSN332MQ50T	25.4 × 50	Q50	0.075	2.68
	1,800	EKM H800VSN182MR25T	30 × 25	R25	0.138	1.65
	2,200	EKM H800VSN222MR30T	30 × 30	R30	0.113	2.05
	2,700	EKM H800VSN272MR35T	30 × 35	R35	0.092	2.35
	3,300	EKM H800VSN332MR40T	30 × 40	R40	0.075	2.68
	3,900	EKM H800VSN392MR45T	30 × 45	R45	0.064	3.0
	4,700	EKM H800VSN472MR50T	30 × 50	R50	0.053	3.39
	2,200	EKM H800VSN222MA25T	35 × 25	A25	0.113	2.07
	2,700	EKM H800VSN272MA25T	35 × 25	A25	0.092	2.29
	3,300	EKM H800VSN332MA30T	35 × 30	A30	0.075	2.45
	3,900	EKM H800VSN392MA35T	35 × 35	A35	0.064	2.98
	4,700	EKM H800VSN472MA40T	35 × 40	A40	0.053	3.38
	5,600	EKM H800VSN562MA45T	35 × 45	A45	0.044	3.8
	6,800	EKM H800VSN682MA50T	35 × 50	A50	0.037	3.9
	8,200	EKM H800VSN822MA63T	35 × 63	A63	0.03	4.42
	12,000	EKM H800VSN103MA80T	35 × 80	A80	0.021	5.72
	3,900	EKM H800VQT392MB25T	40 × 25	B25	0.064	2.5
	4,700	EKM H800VQT472MB30T	40 × 30	B30	0.053	2.88
	5,600	EKM H800VQT562MB35T	40 × 35	B35	0.044	3.26
	6,800	EKM H800VQT682MB40T	40 × 40	B40	0.037	3.7
	10,000	EKM H800VQT103MB50T	40 × 50	B50	0.025	4.77
	12,000	EKM H800VQT123MB63T	40 × 63	B63	0.021	5.58
	18,000	EKM H800VQT183MB80T	40 × 80	B80	0.014	7.43
100 Volts 125 Volts Surge	560	EKM H101VSN561MP25T	22 × 25	P25	0.444	1.05
	820	EKM H101VSN821MP30T	22 × 30	P30	0.303	1.32
	1,000	EKM H101VSN102MP35T	22 × 35	P35	0.249	1.5
	1,200	EKM H101VSN122MP40T	22 × 40	P40	0.207	1.69
	1,500	EKM H101VSN152MP45T	22 × 45	P45	0.166	1.94
	820	EKM H101VSN821MQ25T	25.4 × 25	Q25	0.303	1.33
	1,000	EKM H101VSN102MQ30T	25.4 × 30	Q30	0.249	1.51
	1,200	EKM H101VSN122MQ35T	25.4 × 35	Q35	0.207	1.71
	1,500	EKM H101VSN152MQ40T	25.4 × 40	Q40	0.166	1.98
	1,800	EKM H101VSN182MQ45T	25.4 × 45	Q45	0.138	2.23
	2,200	EKM H101VSN222MQ50T	25.4 × 50	Q50	0.113	2.53
	1,200	EKM H101VSN122MR25T	30 × 25	R25	0.207	1.68
	1,500	EKM H101VSN152MR30T	30 × 30	R30	0.166	1.95
	1,800	EKM H101VSN182MR35T	30 × 35	R35	0.138	2.5
	2,200	EKM H101VSN222MR40T	30 × 40	R40	0.113	2.7
	2,700	EKM H101VSN272MR45T	30 × 45	R45	0.092	2.88
	3,300	EKM H101VSN332MR50T	30 × 50	R50	0.075	3.28
	1,500	EKM H101VSN152MA25T	35 × 25	A25	0.166	1.98
	1,800	EKM H101VSN182MA25T	35 × 25	A25	0.138	2.17
	2,200	EKM H101VSN222MA30T	35 × 30	A30	0.113	2.5
	2,700	EKM H101VSN272MA35T	35 × 35	A35	0.092	2.86
	3,300	EKM H101VSN332MA40T	35 × 40	A40	0.075	3.27
	3,900	EKM H101VSN392MA45T	35 × 45	A45	0.064	3.67
	4,700	EKM H101VSN472MA50T	35 × 50	A50	0.053	3.8

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

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Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
100 Volts 125 Volts Surge	5,600	EKM H101VSN562MA63T	35 × 63	A63	0.044	4.08
	6,800	EKM H101VSN682MA80T	35 × 80	A80	0.037	4.81
	2,200	EKM H101VQT222MB25T	40 × 25	B25	0.113	2.1
	2,700	EKM H101VQT272MB30T	40 × 30	B30	0.092	2.44
	3,300	EKM H101VQT332MB35T	40 × 35	B35	0.075	2.8
	4,700	EKM H101VQT472MB40T	40 × 40	B40	0.053	3.44
	5,600	EKM H101VQT562MB50T	40 × 50	B50	0.044	3.99
	8,200	EKM H101VQT822MB63T	40 × 63	B63	0.03	5.16
	10,000	EKM H101VQT103MB80T	40 × 80	B80	0.025	6.19
160 Volts 200 Volts Surge	220	EKM H161VSN221MP20T	22 × 20	P20	1.13	0.8
	270	EKM H161VSN271MP25T	22 × 25	P25	0.614	1.09
	330	EKM H161VSN331MP25T	22 × 25	P25	0.502	1.2
	390	EKM H161VSN391MP30T	22 × 30	P30	0.425	1.3
	470	EKM H161VSN471MP35T	22 × 35	P35	0.353	1.4
	560	EKM H161VSN561MP40T	22 × 40	P40	0.296	1.5
	680	EKM H161VSN681MP45T	22 × 45	P45	0.244	1.71
	820	EKM H161VSN821MP50T	22 × 50	P50	0.202	1.93
	330	EKM H161VSN331MQ20T	25.4 × 20	Q20	0.753	1.02
	390	EKM H161VSN391MQ25T	25.4 × 25	Q25	0.425	1.28
	470	EKM H161VSN471MQ25T	25.4 × 25	Q25	0.353	1.41
	560	EKM H161VSN561MQ30T	25.4 × 30	Q30	0.296	1.51
	680	EKM H161VSN681MQ35T	25.4 × 35	Q35	0.244	1.7
	820	EKM H161VSN821MQ40T	25.4 × 40	Q40	0.202	2.01
	1,000	EKM H161VSN102MQ45T	25.4 × 45	Q45	0.166	2.2
	1,200	EKM H161VSN122MQ50T	25.4 × 50	Q50	0.138	2.45
	390	EKM H161VSN391MR20T	30 × 20	R20	0.638	1.17
	470	EKM H161VSN471MR20T	30 × 20	R20	0.529	1.28
	560	EKM H161VSN561MR25T	30 × 25	R25	0.296	1.56
	680	EKM H161VSN681MR25T	30 × 25	R25	0.244	1.72
	820	EKM H161VSN821MR30T	30 × 30	R30	0.202	2.0
	1,000	EKM H161VSN102MR35T	30 × 35	R35	0.166	2.22
	1,200	EKM H161VSN122MR40T	30 × 40	R40	0.138	2.44
	1,500	EKM H161VSN152MR45T	30 × 45	R45	0.111	2.82
	1,800	EKM H161VSN182MR50T	30 × 50	R50	0.092	3.31
	560	EKM H161VSN561MA20T	35 × 20	A20	0.444	1.54
	680	EKM H161VSN681MA20T	35 × 20	A20	0.366	1.7
	820	EKM H161VSN821MA25T	35 × 25	A25	0.303	1.91
	1,000	EKM H161VSN102MA25T	35 × 25	A25	0.249	2.11
	1,200	EKM H161VSN122MA30T	35 × 30	A30	0.207	2.44
	1,500	EKM H161VSN152MA35T	35 × 35	A35	0.166	2.5
	1,800	EKM H161VSN182MA45T	35 × 45	A45	0.138	3.31
	2,200	EKM H161VSN222MA50T	35 × 50	A50	0.113	3.77
	3,300	EKM H161VSN332MA63T	35 × 63	A63	0.075	3.96
	3,900	EKM H161VSN392MA80T	35 × 80	A80	0.064	4.61
	1,200	EKM H161VQT122MB25T	40 × 25	B25	0.207	1.96
	1,800	EKM H161VQT182MB30T	40 × 30	B30	0.138	2.52
	2,200	EKM H161VQT222MB35T	40 × 35	B35	0.113	2.89
	2,700	EKM H161VQT272MB40T	40 × 40	B40	0.092	3.3
	3,300	EKM H161VQT332MB50T	40 × 50	B50	0.075	3.87
	4,700	EKM H161VQT472MB63T	40 × 63	B63	0.053	4.94
	5,600	EKM H161VQT562MB80T	40 × 80	B80	0.044	5.86
180 Volts 225 Volts Surge	180	EKM H181VSN181MP20T	22 × 20	P20	1.381	0.73
	220	EKM H181VSN221MP20T	22 × 20	P20	1.13	0.8
	270	EKM H181VSN271MP25T	22 × 25	P25	0.614	0.96
	330	EKM H181VSN331MP25T	22 × 25	P25	0.502	1.06
	390	EKM H181VSN391MP30T	22 × 30	P30	0.425	1.3
	470	EKM H181VSN471MP35T	22 × 35	P35	0.353	1.35

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

*Refer to diagram of dimensions for detailed case size specifications.

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
180 Volts 225 Volts Surge	560	EKMh181VSN561MP40T	22 × 40	P40	0.296	1.51
	680	EKMh181VSN681MP45T	22 × 45	P45	0.244	1.71
	820	EKMh181VSN821MP50T	22 × 50	P50	0.202	1.97
	270	EKMh181VSN271MQ20T	25.4 × 20	Q20	0.921	0.92
	330	EKMh181VSN331MQ25T	25.4 × 25	Q25	0.502	1.2
	390	EKMh181VSN391MQ25T	25.4 × 25	Q25	0.425	1.3
	470	EKMh181VSN471MQ30T	25.4 × 30	Q30	0.353	1.4
	560	EKMh181VSN561MQ35T	25.4 × 35	Q35	0.296	1.53
	680	EKMh181VSN681MQ40T	25.4 × 40	Q40	0.244	1.74
	820	EKMh181VSN821MQ45T	25.4 × 45	Q45	0.202	1.97
	1,000	EKMh181VSN102MQ50T	25.4 × 50	Q50	0.166	2.23
	390	EKMh181VSN391MR20T	30 × 20	R20	0.638	1.17
	470	EKMh181VSN471MR25T	30 × 25	R25	0.353	1.38
	560	EKMh181VSN561MR25T	30 × 25	R25	0.296	1.51
	680	EKMh181VSN681MR30T	30 × 30	R30	0.244	1.72
	820	EKMh181VSN821MR35T	30 × 35	R35	0.202	2.0
	1,000	EKMh181VSN102MR40T	30 × 40	R40	0.166	2.24
	1,200	EKMh181VSN122MR45T	30 × 45	R45	0.138	2.52
	1,500	EKMh181VSN152MR50T	30 × 50	R50	0.111	2.89
	470	EKMh181VSN471MA20T	35 × 20	A20	0.529	1.41
	560	EKMh181VSN561MA20T	35 × 20	A20	0.444	1.53
	680	EKMh181VSN681MA25T	35 × 25	A25	0.366	1.74
	820	EKMh181VSN821MA25T	35 × 25	A25	0.303	1.91
	1,000	EKMh181VSN102MA30T	35 × 30	A30	0.249	2.26
	1,200	EKMh181VSN122MA35T	35 × 35	A35	0.207	2.5
	1,500	EKMh181VSN152MA40T	35 × 40	A40	0.166	2.89
	1,800	EKMh181VSN182MA40T	35 × 40	A40	0.138	3.17
	2,200	EKMh181VSN222MA50T	35 × 50	A50	0.113	3.6
	2,700	EKMh181VSN272MA63T	35 × 63	A63	0.092	4.01
	3,300	EKMh181VSN332MA80T	35 × 80	A80	0.075	4.74
	1,000	EKMh181VQT102MB25T	40 × 25	B25	0.249	2.01
	1,500	EKMh181VQT152MB30T	40 × 30	B30	0.166	2.57
	1,800	EKMh181VQT182MB35T	40 × 35	B35	0.138	2.92
	2,200	EKMh181VQT222MB40T	40 × 40	B40	0.113	3.33
	2,700	EKMh181VQT272MB50T	40 × 50	B50	0.092	3.92
	3,900	EKMh181VQT392MB63T	40 × 63	B63	0.064	5.03
	4,700	EKMh181VQT472MB80T	40 × 80	B80	0.053	6.01
200 Volts 250 Volts Surge	150	EKMh201VSN151MP20T	22 × 20	P20	1.658	0.66
	180	EKMh201VSN181MP20T	22 × 20	P20	1.381	0.72
	220	EKMh201VSN221MP25T	22 × 25	P25	0.753	0.79
	270	EKMh201VSN271MP25T	22 × 25	P25	0.614	0.87
	330	EKMh201VSN331MP30T	22 × 30	P30	0.502	1.2
	390	EKMh201VSN391MP35T	22 × 35	P35	0.425	1.31
	470	EKMh201VSN471MP40T	22 × 40	P40	0.353	1.4
	560	EKMh201VSN561MP45T	22 × 45	P45	0.296	1.56
	680	EKMh201VSN681MP50T	22 × 50	P50	0.244	1.74
	220	EKMh201VSN221MQ20T	25.4 × 20	Q20	1.13	0.83
	270	EKMh201VSN271MQ25T	25.4 × 25	Q25	0.614	1.09
	330	EKMh201VSN331MQ25T	25.4 × 25	Q25	0.502	1.21
	390	EKMh201VSN391MQ25T	25.4 × 25	Q25	0.425	1.31
	470	EKMh201VSN471MQ30T	25.4 × 30	Q30	0.353	1.41
	560	EKMh201VSN561MQ35T	25.4 × 35	Q35	0.296	1.53
	680	EKMh201VSN681MQ40T	25.4 × 40	Q40	0.244	1.74
	820	EKMh201VSN821MQ50T	25.4 × 50	Q50	0.202	2.04
	330	EKMh201VSN331MR20T	30 × 20	R20	0.753	1.08
	390	EKMh201VSN391MR25T	30 × 25	R25	0.425	1.37
	470	EKMh201VSN471MR25T	30 × 25	R25	0.353	1.5
	560	EKMh201VSN561MR25T	30 × 25	R25	0.296	1.63

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
200 Volts 250 Volts Surge	680	EKM H201VSN681MR30T	30 × 30	R30	0.244	1.74
	820	EKM H201VSN821MR35T	30 × 35	R35	0.202	2.0
	1,000	EKM H201VSN102MR45T	30 × 45	R45	0.166	2.3
	1,200	EKM H201VSN122MR50T	30 × 50	R50	0.138	2.6
	470	EKM H201VSN471MA20T	35 × 20	A20	0.529	1.41
	560	EKM H201VSN561MA25T	35 × 25	A25	0.444	1.56
	680	EKM H201VSN681MA25T	35 × 25	A25	0.366	1.72
	820	EKM H201VSN821MA30T	35 × 30	A30	0.303	2.04
	1,000	EKM H201VSN102MA35T	35 × 35	A35	0.249	2.3
	1,200	EKM H201VSN122MA40T	35 × 40	A40	0.207	2.65
	1,500	EKM H201VSN152MA45T	35 × 45	A45	0.166	3.08
	1,800	EKM H201VSN182MA50T	35 × 50	A50	0.138	3.47
	2,200	EKM H201VSN222MA63T	35 × 63	A63	0.113	3.62
	3,300	EKM H201VSN332MA80T	35 × 80	A80	0.075	4.74
	1,000	EKM H201VQT102MB25T	40 × 25	B25	0.249	2.01
	1,200	EKM H201VQT122MB30T	40 × 30	B30	0.207	2.3
	1,500	EKM H201VQT152MB35T	40 × 35	B35	0.166	2.67
	1,800	EKM H201VQT182MB40T	40 × 40	B40	0.138	3.01
	2,700	EKM H201VQT272MB50T	40 × 50	B50	0.092	3.92
	3,300	EKM H201VQT332MB63T	40 × 63	B63	0.075	4.63
	4,700	EKM H201VQT472MB80T	40 × 80	B80	0.053	6.01
250 Volts 300 Volts Surge	120	EKM H251VSN121MP20T	22 × 20	P20	2.072	0.59
	150	EKM H251VSN151MP25T	22 × 25	P25	1.105	0.71
	180	EKM H251VSN181MP25T	22 × 25	P25	0.921	0.78
	220	EKM H251VSN221MP30T	22 × 30	P30	0.753	0.95
	270	EKM H251VSN271MP35T	22 × 35	P35	0.614	1.14
	330	EKM H251VSN331MP40T	22 × 40	P40	0.502	1.26
	390	EKM H251VSN391MP45T	22 × 45	P45	0.425	1.49
	470	EKM H251VSN471MP50T	22 × 50	P50	0.353	1.57
	180	EKM H251VSN181MQ20T	25.4 × 20	Q20	1.381	0.75
	220	EKM H251VSN221MQ25T	25.4 × 25	Q25	0.753	0.95
	270	EKM H251VSN271MQ25T	25.4 × 25	Q25	0.614	1.05
	330	EKM H251VSN331MQ30T	25.4 × 30	Q30	0.502	1.2
	390	EKM H251VSN391MQ35T	25.4 × 35	Q35	0.425	1.49
	470	EKM H251VSN471MQ40T	25.4 × 40	Q40	0.353	1.57
	560	EKM H251VSN561MQ45T	25.4 × 45	Q45	0.296	1.79
	680	EKM H251VSN681MQ50T	25.4 × 50	Q50	0.244	1.84
	220	EKM H251VSN221MR20T	30 × 20	R20	1.13	0.88
	270	EKM H251VSN271MR20T	30 × 20	R20	0.921	0.97
	330	EKM H251VSN331MR25T	30 × 25	R25	0.502	1.26
	390	EKM H251VSN391MR25T	30 × 25	R25	0.425	1.37
	470	EKM H251VSN471MR30T	30 × 30	R30	0.353	1.57
	560	EKM H251VSN561MR35T	30 × 35	R35	0.296	1.79
	680	EKM H251VSN681MR40T	30 × 40	R40	0.244	2.0
	820	EKM H251VSN821MR45T	30 × 45	R45	0.202	2.16
	330	EKM H251VSN331MA20T	35 × 20	A20	0.753	1.18
	390	EKM H251VSN391MA25T	35 × 25	A25	0.638	1.43
	470	EKM H251VSN471MA25T	35 × 25	A25	0.529	1.57
	560	EKM H251VSN561MA30T	35 × 30	A30	0.444	1.79
	680	EKM H251VSN681MA30T	35 × 30	A30	0.366	1.97
	820	EKM H251VSN821MA35T	35 × 35	A35	0.303	1.98
	1,000	EKM H251VSN102MA40T	35 × 40	A40	0.249	2.3
	1,200	EKM H251VSN122MA45T	35 × 45	A45	0.207	2.43
	1,800	EKM H251VSN182MA63T	35 × 63	A63	0.138	3.27
	2,200	EKM H251VSN222MA80T	35 × 80	A80	0.113	3.87
	680	EKM H251VQT681MB25T	40 × 25	B25	0.366	1.65
	1,000	EKM H251VQT102MB30T	40 × 30	B30	0.249	2.1
	1,200	EKM H251VQT122MB35T	40 × 35	B35	0.207	2.39

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

*Refer to diagram of dimensions for detailed case size specifications.

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
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250 Volts 300 Volts Surge	1,500	EKMh251VQT152MB40T	40 × 40	B40	0.166	2.75
	1,800	EKMh251VQT182MB50T	40 × 50	B50	0.138	3.2
	2,200	EKMh251VQT222MB63T	40 × 63	B63	0.113	3.78
	3,300	EKMh251VQT332MB80T	40 × 80	B80	0.075	5.03

315 Volts 365 Volts Surge	68	EKMh3B1VSN680MP20T	22 × 20	P20	3.656	0.44
	82	EKMh3B1VSN820MP25T	22 × 25	P25	3.032	0.64
	100	EKMh3B1VSN101MP30T	22 × 30	P30	2.486	0.68
	120	EKMh3B1VSN121MP30T	22 × 30	P30	2.072	0.75
	150	EKMh3B1VSN151MP35T	22 × 35	P35	1.658	0.82
	180	EKMh3B1VSN181MP40T	22 × 40	P40	1.381	0.91
	220	EKMh3B1VSN221MP45T	22 × 45	P45	1.13	1.02
	270	EKMh3B1VSN271MP50T	22 × 50	P50	0.921	1.16
	100	EKMh3B1VSN101MQ20T	25.4 × 20	Q20	2.486	0.56
	120	EKMh3B1VSN121MQ25T	25.4 × 25	Q25	2.072	0.76
	150	EKMh3B1VSN151MQ30T	25.4 × 30	Q30	1.658	0.8
	180	EKMh3B1VSN181MQ30T	25.4 × 30	Q30	1.381	0.88
	220	EKMh3B1VSN221MQ35T	25.4 × 35	Q35	1.13	1.02
	270	EKMh3B1VSN271MQ40T	25.4 × 40	Q40	0.921	1.15
	330	EKMh3B1VSN331MQ50T	25.4 × 50	Q50	0.753	1.33
	120	EKMh3B1VSN121MR20T	30 × 20	R20	2.072	0.65
	150	EKMh3B1VSN151MR25T	30 × 25	R25	1.658	0.82
	180	EKMh3B1VSN181MR25T	30 × 25	R25	1.381	0.9
	220	EKMh3B1VSN221MR30T	30 × 30	R30	1.13	1.02
	270	EKMh3B1VSN271MR35T	30 × 35	R35	0.921	1.17
	330	EKMh3B1VSN331MR35T	30 × 35	R35	0.753	1.3
	390	EKMh3B1VSN391MR40T	30 × 40	R40	0.638	1.46
	470	EKMh3B1VSN471MR50T	30 × 50	R50	0.529	1.7
	180	EKMh3B1VSN181MA20T	35 × 20	A20	1.381	0.83
	220	EKMh3B1VSN221MA25T	35 × 25	A25	1.13	1.03
	270	EKMh3B1VSN271MA25T	35 × 25	A25	0.921	1.15
	330	EKMh3B1VSN331MA30T	35 × 30	A30	0.753	1.32
	390	EKMh3B1VSN391MA35T	35 × 35	A35	0.638	1.47
	470	EKMh3B1VSN471MA40T	35 × 40	A40	0.529	1.69
	560	EKMh3B1VSN561MA45T	35 × 45	A45	0.444	1.9
	680	EKMh3B1VSN681MA50T	35 × 50	A50	0.366	2.15
	1,000	EKMh3B1VSN102MA63T	35 × 63	A63	0.249	2.82
	1,200	EKMh3B1VSN122MA80T	35 × 80	A80	0.207	3.3
	330	EKMh3B1VQT331MB25T	40 × 25	B25	0.753	1.33
	470	EKMh3B1VQT471MB30T	40 × 30	B30	0.529	1.66
	560	EKMh3B1VQT561MB35T	40 × 35	B35	0.444	1.88
	680	EKMh3B1VQT681MB40T	40 × 40	B40	0.366	2.14
	1,000	EKMh3B1VQT102MB50T	40 × 50	B50	0.249	2.75
	1,500	EKMh3B1VQT152MB63T	40 × 63	B63	0.166	3.6
	1,800	EKMh3B1VQT182MB80T	40 × 80	B80	0.138	4.29

350 Volts 400 Volts Surge	56	EKMh351VSN560MP20T	22 × 20	P20	4.44	0.4
	68	EKMh351VSN680MP25T	22 × 25	P25	3.656	0.51
	82	EKMh351VSN820MP25T	22 × 25	P25	3.032	0.56
	100	EKMh351VSN101MP30T	22 × 30	P30	2.486	0.69
	120	EKMh351VSN121MP35T	22 × 35	P35	2.072	0.75
	150	EKMh351VSN151MP40T	22 × 40	P40	1.658	0.82
	180	EKMh351VSN181MP45T	22 × 45	P45	1.381	0.92
	220	EKMh351VSN221MP50T	22 × 50	P50	1.13	1.05
	82	EKMh351VSN820MQ20T	25.4 × 20	Q20	3.032	0.51
	100	EKMh351VSN101MQ25T	25.4 × 25	Q25	2.486	0.69
	120	EKMh351VSN121MQ25T	25.4 × 25	Q25	2.072	0.75
	150	EKMh351VSN151MQ30T	25.4 × 30	Q30	1.658	0.83
	180	EKMh351VSN181MQ35T	25.4 × 35	Q35	1.381	0.92

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
350 Volts 400 Volts Surge	220	EKMH351VSN221MQ40T	25.4 × 40	Q40	1.13	1.04
	270	EKMH351VSN271MQ45T	25.4 × 45	Q45	0.921	1.18
	100	EKMH351VSN101MR20T	30 × 20	R20	2.486	0.59
	120	EKMH351VSN121MR20T	30 × 20	R20	2.072	0.64
	150	EKMH351VSN151MR25T	30 × 25	R25	1.658	0.83
	180	EKMH351VSN181MR25T	30 × 25	R25	1.381	0.91
	220	EKMH351VSN221MR30T	30 × 30	R30	1.13	1.02
	270	EKMH351VSN271MR35T	30 × 35	R35	0.921	1.17
	330	EKMH351VSN331MR40T	30 × 40	R40	0.753	1.34
	390	EKMH351VSN391MR45T	30 × 45	R45	0.638	1.51
	150	EKMH351VSN151MA20T	35 × 20	A20	1.658	0.76
	180	EKMH351VSN181MA25T	35 × 25	A25	1.381	0.94
	220	EKMH351VSN221MA25T	35 × 25	A25	1.13	1.04
	270	EKMH351VSN271MA30T	35 × 30	A30	0.921	1.2
	330	EKMH351VSN331MA30T	35 × 30	A30	0.753	1.33
	390	EKMH351VSN391MA35T	35 × 35	A35	0.638	1.47
	470	EKMH351VSN471MA40T	35 × 40	A40	0.529	1.69
	560	EKMH351VSN561MA45T	35 × 45	A45	0.444	1.9
	1,000	EKMH351VSN102MA63T	35 × 63	A63	0.249	2.82
	1,200	EKMH351VSN122MA80T	35 × 80	A80	0.207	3.3
	330	EKMH351VQT331MB25T	40 × 25	B25	0.753	1.33
	470	EKMH351VQT471MB30T	40 × 30	B30	0.529	1.66
	560	EKMH351VQT561MB35T	40 × 35	B35	0.444	1.88
	680	EKMH351VQT681MB40T	40 × 40	B40	0.366	2.14
	1,000	EKMH351VQT102MB50T	40 × 50	B50	0.249	2.75
	1,200	EKMH351VQT122MB63T	40 × 63	B63	0.207	3.22
	1,800	EKMH351VQT182MB80T	40 × 80	B80	0.138	4.29
400 Volts 450 Volts Surge	47	EKMH401VSN470MP20T	22 × 20	P20	5.29	0.37
	56	EKMH401VSN560MP20T	22 × 20	P20	4.44	0.4
	68	EKMH401VSN680MP25T	22 × 25	P25	3.656	0.51
	82	EKMH401VSN820MP30T	22 × 30	P30	3.032	0.58
	100	EKMH401VSN101MP30T	22 × 30	P30	2.486	0.64
	120	EKMH401VSN121MP35T	22 × 35	P35	2.072	0.72
	150	EKMH401VSN151MP40T	22 × 40	P40	1.658	0.82
	180	EKMH401VSN181MP50T	22 × 50	P50	1.381	0.95
	68	EKMH401VSN680MQ20T	25.4 × 20	Q20	3.656	0.46
	82	EKMH401VSN820MQ25T	25.4 × 25	Q25	3.032	0.64
	100	EKMH401VSN101MQ25T	25.4 × 25	Q25	2.486	0.67
	120	EKMH401VSN121MQ30T	25.4 × 30	Q30	2.072	0.72
	150	EKMH401VSN151MQ35T	25.4 × 35	Q35	1.658	0.84
	180	EKMH401VSN181MQ40T	25.4 × 40	Q40	1.381	0.94
	220	EKMH401VSN221MQ45T	25.4 × 45	Q45	1.13	1.07
	270	EKMH401VSN271MQ50T	25.4 × 50	Q50	0.921	1.21
	100	EKMH401VSN101MR20T	30 × 20	R20	2.486	0.59
	120	EKMH401VSN121MR25T	30 × 25	R25	2.072	0.76
	150	EKMH401VSN151MR25T	30 × 25	R25	1.658	0.84
	180	EKMH401VSN181MR30T	30 × 30	R30	1.381	0.92
	220	EKMH401VSN221MR35T	30 × 35	R35	1.13	1.06
	270	EKMH401VSN271MR40T	30 × 40	R40	0.921	1.21
	330	EKMH401VSN331MR45T	30 × 45	R45	0.753	1.39
	390	EKMH401VSN391MR50T	30 × 50	R50	0.638	1.55
	150	EKMH401VSN151MA20T	35 × 20	A20	1.658	0.76
	180	EKMH401VSN181MA25T	35 × 25	A25	1.381	0.94
	220	EKMH401VSN221MA30T	35 × 30	A30	1.13	1.08
	270	EKMH401VSN271MA30T	35 × 30	A30	0.921	1.2
	330	EKMH401VSN331MA35T	35 × 35	A35	0.753	1.35
	390	EKMH401VSN391MA40T	35 × 40	A40	0.638	1.54
	470	EKMH401VSN471MA45T	35 × 45	A45	0.529	1.74

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

*Refer to diagram of dimensions for detailed case size specifications.

KMH Series

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Standard Voltage Ratings - Snap Mount

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (Ω) at +20°C, 120Hz	Rated Ripple Current (A rms) at +105°C, 120Hz
400 Volts 450 Volts Surge	820	EKM401VSN821MA63T	35 × 63	A63	0.303	2.55
	1,000	EKM401VSN102MA80T	35 × 80	A80	0.249	3.01
	270	EKM401VQT271MB25T	40 × 25	B25	0.921	1.2
	390	EKM401VQT391MB30T	40 × 30	B30	0.638	1.51
	470	EKM401VQT471MB35T	40 × 35	B35	0.529	1.72
	560	EKM401VQT561MB40T	40 × 40	B40	0.444	1.94
	820	EKM401VQT821MB50T	40 × 50	B50	0.303	2.49
	1,200	EKM401VQT122MB63T	40 × 63	B63	0.207	3.22
	1,500	EKM401VQT152MB80T	40 × 80	B80	0.166	3.92
450 Volts 500 Volts Surge	56	EKM451VSN560MP25T	22 × 25	P25	4.44	0.4
	68	EKM451VSN680MP30T	22 × 30	P30	3.656	0.5
	82	EKM451VSN820MP35T	22 × 35	P35	3.032	0.56
	100	EKM451VSN101MP40T	22 × 40	P40	2.486	0.64
	120	EKM451VSN121MP45T	22 × 45	P45	2.072	0.72
	150	EKM451VSN151MP50T	22 × 50	P50	1.658	0.79
	68	EKM451VSN680MQ25T	25.4 × 25	Q25	3.656	0.5
	82	EKM451VSN820MQ25T	25.4 × 25	Q25	3.032	0.55
	100	EKM451VSN101MQ30T	25.4 × 30	Q30	2.486	0.57
	120	EKM451VSN121MQ35T	25.4 × 35	Q35	2.072	0.71
	150	EKM451VSN151MQ40T	25.4 × 40	Q40	1.658	0.75
	180	EKM451VSN181MQ45T	25.4 × 45	Q45	1.381	0.84
	220	EKM451VSN221MQ50T	25.4 × 50	Q50	1.13	0.98
	100	EKM451VSN101MR25T	30 × 25	R25	2.486	0.64
	120	EKM451VSN121MR25T	30 × 25	R25	2.072	0.7
	150	EKM451VSN151MR30T	30 × 30	R30	1.658	0.74
	180	EKM451VSN181MR35T	30 × 35	R35	1.381	0.87
	220	EKM451VSN221MR40T	30 × 40	R40	1.13	0.98
	270	EKM451VSN271MR45T	30 × 45	R45	0.921	1.15
	330	EKM451VSN331MR50T	30 × 50	R50	0.753	1.38
	150	EKM451VSN151MA25T	35 × 25	A25	1.658	0.75
	180	EKM451VSN181MA30T	35 × 30	A30	1.381	0.9
	220	EKM451VSN221MA30T	35 × 30	A30	1.13	1.0
	270	EKM451VSN271MA35T	35 × 35	A35	0.921	1.17
	330	EKM451VSN331MA40T	35 × 40	A40	0.753	1.38
	390	EKM451VSN391MA45T	35 × 45	A45	0.638	1.55
	470	EKM451VSN471MA50T	35 × 50	A50	0.529	1.72
	560	EKM451VSN561MA63T	35 × 63	A63	0.444	2.11
	820	EKM451VSN821MA80T	35 × 80	A80	0.303	2.73
	220	EKM451VQT221MB25T	40 × 25	B25	1.13	1.09
	270	EKM451VQT271MB30T	40 × 30	B30	0.921	1.26
	390	EKM451VQT391MB35T	40 × 35	B35	0.638	1.57
	470	EKM451VQT471MB40T	40 × 40	B40	0.529	1.78
	560	EKM451VQT561MB50T	40 × 50	B50	0.444	2.06
	820	EKM451VQT821MB63T	40 × 63	B63	0.303	2.66
	1,200	EKM451VQT122MB80T	40 × 80	B80	0.207	3.5

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

*Refer to diagram of dimensions for detailed case size specifications.