



Aluminum Electrolytic Capacitors

Snap-in capacitors

Series/Type: B43254

Date: April 1, 2014

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Long-life grade capacitors

长寿命电容器

Applications

应用

- Switch mode power supplies in industrial electronics
工业电子产品中的开关电源

Features

特点

- RoHS-compatible
符合RoHS要求
- High ripple current capability
耐高纹波电流能力
- Useful life of 3000h at 105 °C
105 °C 3000h使用寿命

Construction

结构

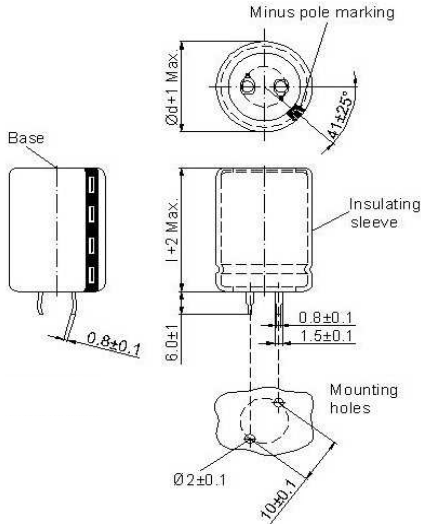
- Aluminum case, fully insulated
铝质外壳，整体绝缘
- Minus pole marking on the insulating sleeve
绝缘套管上标注负极
- Overload protection by safety vent on the base
底部安全阀过载保护

Specifications and characteristics in brief
规格性能参数一览表

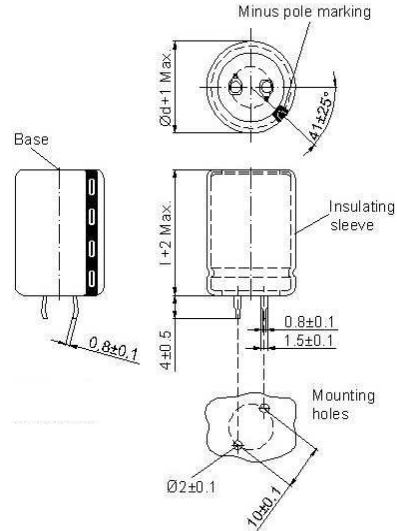
Rated voltage V_R 额定电压 V_R	160...450 V DC					
Surge voltage V_S 浪涌电压 V_S	1.15 · V_R (for $V_R \leq 315V$ DC) 1.10 · V_R (for $V_R > 315V$ DC)					
Operating temperature range 工作温度范围	$V_R \leq 250V$ DC: -40 °C...+105 °C $V_R \geq 300V$ DC: -25 °C...+105 °C					
Rated capacitance C_R 额定电容量 C_R (20 °C, 120 Hz)	47...2700 μF					
Capacitance tolerance 电容量公差	±20% M					
Dissipation factor(max.) 损耗正切角(最大值) 20°C, 120Hz.	V_R (V DC)	160...400			450	
	$\tan\delta$	0.15			0.20	
Leakage current I_{leak} (20 °C, after 5 minutes) 漏电流 I_{leak} (20 °C, 5分钟后)	$I_{leak} \leq 3 \mu A \cdot \left(\frac{C_R}{\mu F} \cdot \frac{V_R}{V} \right)^{1/2}$					
Low temperature stability 低温稳定性 (max impedance ratio) (最大阻抗比率)	V_R (V DC)	160...250	300...315	350...400	450	120Hz
	$\frac{Z(-25\text{ °C})}{Z(+20\text{ °C})}$	4	4	4	8	
	$\frac{Z(-40\text{ °C})}{Z(+20\text{ °C})}$	6	-	-	-	
Useful life 使用寿命 (105 °C, $V_R, I_{AC,R}$)	3000 h	Requirements 要求:				
		$\Delta C/C \leq \pm 20\%$ of initial value 初始值的±20%				
		$\tan\delta \leq 2$ times initial specified limit 2倍初始规定值				
		$I_{leak} \leq$ initial specified limit 初始规定值				
Shelf life 储存寿命	After storage for 1000 h at 105 °C, the capacitors shall meet the requirement of useful life test after reforming process. After test: V_R to be applied for 30 minutes, 24 to 48 hours before measurement. 105°C高温贮存1000小时, 并预处理后, 电容器必须符合使用寿命测试中对其电性能的要求。预处理方法: 先加额定电压充电30分钟, 恢复24至48小时后再测试。					
Frequency multiplier for rated ripple current 额定纹波电流频率系数	50 Hz	120 Hz	1 kHz	10 kHz	20 kHz	
	0.80	1.00	1.20	1.50	1.55	
Temperature multiplier for rated ripple current 额定纹波电流温度系数	+40 °C	+55 °C	+70 °C	+85 °C	+105 °C	
	2.70	2.50	2.10	1.70	1.00	
Sectional specification 分规范	IEC 60384-4					

Dimensional drawing

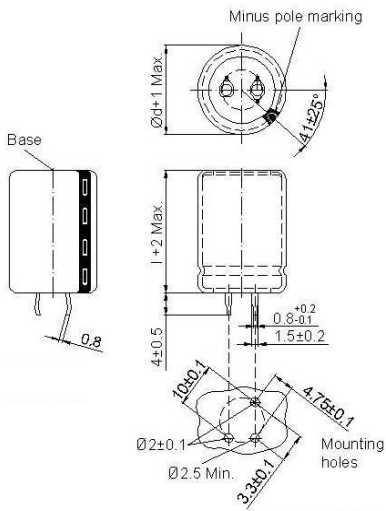
snap-in standard terminals (6.0±1) mm
 digit 15 of part number = 0



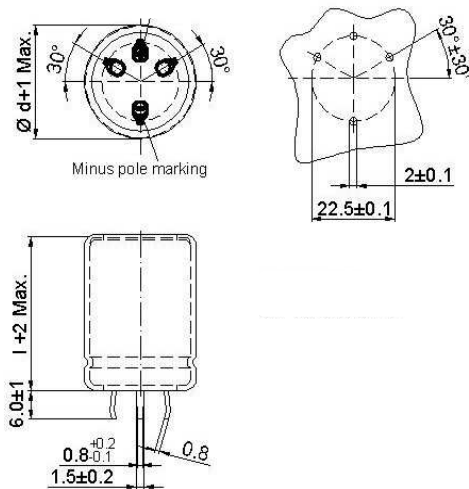
snap-in short terminals (4.0±0.5) mm
 digit 15 of part number = 7



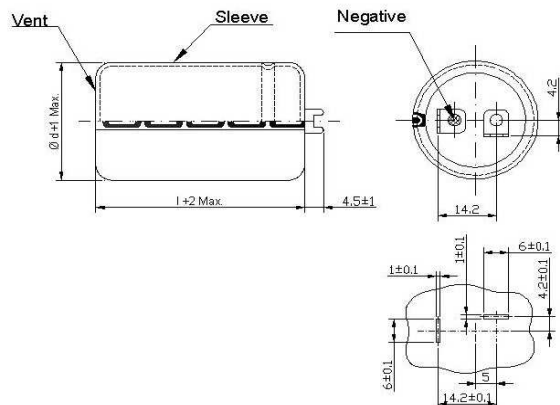
snap-in 3 terminals terminals (4.0±0.5) mm
 digit 15 of part number = 2



snap-in 4 terminal terminals (6.0±1) mm
 digit 15 of part number = 4



vibration-resistance terminals (4.5±1) mm
 digit 15 of part number = 8



Technical dates and ordering codes

V _R V DC	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
160	220	22.0 × 20	0.76	B43254A1227M0*#
	270	22.0 × 25	0.91	B43254A1277M0*#
	270	25.4 × 20	0.93	B43254B1277M0*#
	330	22.0 × 25	1.01	B43254A1337M0*#
	330	25.4 × 20	1.03	B43254B1337M0*#
	390	22.0 × 25	1.09	B43254A1397M0*#
	390	25.4 × 25	1.20	B43254B1397M0*#
	390	30.0 × 20	1.23	B43254C1397M0*#
	470	22.0 × 30	1.28	B43254A1477M0*#
	470	25.4 × 25	1.32	B43254B1477M0*#
	470	30.0 × 20	1.35	B43254C1477M0*#
	560	22.0 × 35	1.48	B43254A1567M0*#
	560	25.4 × 30	1.53	B43254B1567M0*#
	560	30.0 × 25	1.57	B43254C1567M0*#
	560	35.0 × 20	1.60	B43254D1567M0*#
	680	22.0 × 40	1.72	B43254A1687M0*#
	680	25.4 × 30	1.69	B43254B1687M0*#
	680	30.0 × 25	1.73	B43254C1687M0*#
	680	35.0 × 20	1.76	B43254D1687M0*#
	820	22.0 × 45	1.98	B43254A1827M0*#
	820	25.4 × 35	1.96	B43254B1827M0*#
	820	30.0 × 30	2.02	B43254C1827M0*#
	820	35.0 × 25	2.06	B43254D1827M0*#
	1000	22.0 × 50	2.28	B43254A1108M0*#
	1000	25.4 × 40	2.28	B43254B1108M0*#
	1000	30.0 × 30	2.23	B43254C1108M0*#
	1000	35.0 × 25	2.28	B43254D1108M0*#
	1200	25.4 × 45	2.41	B43254A1128M0*#
	1200	30.0 × 35	2.38	B43254B1128M0*#
	1200	35.0 × 30	2.44	B43254C1128M0*#
	1500	25.4 × 50	2.81	B43254A1158M0*#
	1500	30.0 × 40	2.79	B43254B1158M0*#
	1500	35.0 × 30	2.73	B43254C1158M0*#
	1800	30.0 × 45	3.19	B43254A1188M0*#

* = Insulation feature
0 = PVC sleeve
6 = PET sleeve

= Terminal style
0 = snap-in standard terminals (6.0±1) mm
2 = snap-in 3 terminals (4.0±0.5) mm
4 = snap-in 4 terminals (6.0±1) mm
7 = snap-in short terminals (4.0±0.5) mm
8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V _R	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
160	1800	35.0 × 35	3.14	B43254B1188M0*#
	2200	30.0 × 50	3.44	B43254A1228M0*#
	2200	35.0 × 45	3.55	B43254B1228M0*#
	2200	35.0 × 50	3.74	B43254C1228M0*#
	2700	35.0 × 50	4.08	B43254A1278M0*#
200	150	22.0 × 20	0.63	B43254A2157M0*#
	180	22.0 × 20	0.69	B43254A2187M0*#
	180	25.4 × 20	0.76	B43254B2187M0*#
	220	22.0 × 25	0.82	B43254A2227M0*#
	220	25.4 × 20	0.84	B43254B2227M0*#
	270	22.0 × 25	0.91	B43254A2277M0*#
	270	25.4 × 25	1.00	B43254B2277M0*#
	270	30.0 × 20	1.02	B43254C2277M0*#
	330	22.0 × 30	1.07	B43254A2337M0*#
	330	25.4 × 25	1.11	B43254B2337M0*#
	330	30.0 × 20	1.13	B43254C2337M0*#
	390	22.0 × 30	1.17	B43254A2397M0*#
	390	25.4 × 25	1.20	B43254B2397M0*#
	390	30.0 × 25	1.31	B43254C2397M0*#
	390	35.0 × 20	1.34	B43254D2397M0*#
	470	22.0 × 35	1.36	B43254A2477M0*#
	470	25.4 × 30	1.40	B43254B2477M0*#
	470	30.0 × 25	1.44	B43254C2477M0*#
	470	35.0 × 20	1.47	B43254D2477M0*#
	560	22.0 × 40	1.56	B43254A2567M0*#
	560	25.4 × 30	1.53	B43254B2567M0*#
	560	30.0 × 25	1.57	B43254C2567M0*#
	560	35.0 × 25	1.70	B43254D2567M0*#
680	22.0 × 45	1.80	B43254A2687M0*#	
680	25.4 × 35	1.79	B43254B2687M0*#	
680	30.0 × 30	1.84	B43254C2687M0*#	
680	35.0 × 25	1.88	B43254D2687M0*#	
820	25.4 × 45	2.16	B43254A2827M0*#	
820	30.0 × 30	2.02	B43254B2827M0*#	

* = Insulation feature

0 = PVC sleeve

6 = PET sleeve

= Terminal style

0 = snap-in standard terminals (6.0±1) mm

2 = snap-in 3 terminals (4.0±0.5) mm

4 = snap-in 4 terminals (6.0±1) mm

7 = snap-in short terminals (4.0±0.5) mm

8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V _R	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
200	820	35.0 × 25	2.06	B43254C2827M0*#
	1000	25.4 × 50	2.48	B43254A2108M0*#
	1000	30.0 × 35	2.35	B43254B2108M0*#
	1000	35.0 × 30	2.41	B43254C2108M0*#
	1200	30.0 × 40	2.50	B43254A2128M0*#
	1200	35.0 × 35	2.57	B43254B2128M0*#
	1500	30.0 × 50	3.04	B43254A2158M0*#
	1500	35.0 × 40	3.00	B43254B2158M0*#
	1800	35.0 × 45	3.43	B43254A2188M0*#
	2200	35.0 × 50	3.68	B43254A2228M0*#
250	120	22.0 × 20	0.56	B43254E2127M0*#
	150	22.0 × 25	0.68	B43254E2157M0*#
	150	25.4 × 20	0.69	B43254F2157M0*#
	180	22.0 × 25	0.74	B43254E2187M0*#
	180	25.4 × 20	0.76	B43254F2187M0*#
	220	30.0 × 20	0.92	B43254C2227M0*#
	220	22.0 × 25	0.82	B43254E2227M0*#
	220	25.4 × 25	0.90	B43254F2227M0*#
	270	22.0 × 30	0.97	B43254E2277M0*#
	270	25.4 × 25	1.00	B43254F2277M0*#
	270	30.0 × 20	1.02	B43254G2277M0*#
	330	35.0 × 20	1.23	B43254D2337M0*#
	330	22.0 × 35	1.14	B43254E2337M0*#
	330	25.4 × 30	1.18	B43254F2337M0*#
	330	30.0 × 25	1.21	B43254G2337M0*#
	390	22.0 × 40	1.30	B43254E2397M0*#
	390	25.4 × 35	1.35	B43254F2397M0*#
	390	30.0 × 25	1.31	B43254G2397M0*#
	390	35.0 × 25	1.42	B43254H2397M0*#
	470	22.0 × 45	1.50	B43254E2477M0*#
470	25.4 × 35	1.48	B43254F2477M0*#	
470	30.0 × 30	1.53	B43254G2477M0*#	
470	35.0 × 25	1.56	B43254H2477M0*#	

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= Terminal style

0 = snap-in standard terminals (6.0±1) mm

2 = snap-in 3 terminals (4.0±0.5) mm

4 = snap-in 4 terminals (6.0±1) mm

7 = snap-in short terminals (4.0±0.5) mm

8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V _R	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
250	560	22.0 × 50	1.71	B43254E2567M0*#
	560	25.4 × 40	1.70	B43254F2567M0*#
	560	30.0 × 30	1.67	B43254G2567M0*#
	560	35.0 × 25	1.70	B43254H2567M0*#
	680	25.4 × 50	2.05	B43254E2687M0*#
	680	30.0 × 35	1.94	B43254F2687M0*#
	680	35.0 × 30	1.98	B43254G2687M0*#
	820	30.0 × 40	2.23	B43254E2827M0*#
	820	35.0 × 35	2.29	B43254F2827M0*#
	1000	30.0 × 50	2.68	B43254E2108M0*#
	1000	35.0 × 40	2.65	B43254F2108M0*#
	1200	30.0 × 60	2.92	B43254E2128M0*#
	1200	35.0 × 45	2.80	B43254F2128M0*#
	1500	35.0 × 50	3.25	B43254E2158M0*#
350	56	22.0 × 20	0.37	B43254A4566M0*#
	68	22.0 × 20	0.41	B43254A4686M0*#
	68	25.4 × 20	0.45	B43254B4686M0*#
	82	22.0 × 25	0.48	B43254A4826M0*#
	82	25.4 × 20	0.49	B43254B4826M0*#
	100	22.0 × 25	0.53	B43254A4107M0*#
	100	25.4 × 25	0.58	B43254B4107M0*#
	100	30.0 × 20	0.60	B43254C4107M0*#
	120	22.0 × 30	0.62	B43254A4127M0*#
	120	25.4 × 25	0.64	B43254B4127M0*#
	120	30.0 × 20	0.65	B43254C4127M0*#
	150	22.0 × 35	0.74	B43254A4157M0*#
	150	25.4 × 30	0.76	B43254B4157M0*#
	150	30.0 × 25	0.78	B43254C4157M0*#
	150	35.0 × 20	0.80	B43254D4157M0*#
	180	22.0 × 40	0.85	B43254A4187M0*#
	180	25.4 × 30	0.83	B43254B4187M0*#
	180	30.0 × 25	0.86	B43254C4187M0*#
180	35.0 × 20	0.87	B43254D4187M0*#	

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2 = snap-in 3 terminals (4.0±0.5) mm
4 = snap-in 4 terminals (6.0±1) mm
7 = snap-in short terminals (4.0±0.5) mm
8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V _R V DC	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
350	220	22.0 × 45	0.98	B43254A4227M0*#
	220	25.4 × 35	0.98	B43254B4227M0*#
	220	30.0 × 30	1.00	B43254C4227M0*#
	220	35.0 × 25	1.03	B43254D4227M0*#
	270	22.0 × 50	1.14	B43254A4277M0*#
	270	25.4 × 40	1.14	B43254B4277M0*#
	270	30.0 × 30	1.11	B43254C4277M0*#
	270	35.0 × 25	1.14	B43254D4277M0*#
	330	25.4 × 45	1.31	B43254A4337M0*#
	330	30.0 × 35	1.30	B43254B4337M0*#
	330	35.0 × 30	1.33	B43254C4337M0*#
	390	25.4 × 50	1.49	B43254A4397M0*#
	390	30.0 × 40	1.48	B43254B4397M0*#
	390	35.0 × 35	1.52	B43254C4397M0*#
	470	30.0 × 45	1.69	B43254A4477M0*#
	470	35.0 × 35	1.67	B43254B4477M0*#
	560	30.0 × 50	1.92	B43254A4567M0*#
	560	35.0 × 40	1.90	B43254B4567M0*#
	680	35.0 × 50	2.27	B43254A4687M0*#
400	47	22.0 × 20	0.34	B43254A9476M0*#
	56	22.0 × 20	0.37	B43254A9566M0*#
	56	25.4 × 20	0.41	B43254B9566M0*#
	68	22.0 × 25	0.44	B43254A9686M0*#
	68	25.4 × 20	0.45	B43254B9686M0*#
	82	22.0 × 25	0.48	B43254A9826M0*#
	82	25.4 × 25	0.53	B43254B9826M0*#
	82	30.0 × 20	0.54	B43254C9826M0*#
	100	22.0 × 30	0.57	B43254A9107M0*#
	100	25.4 × 25	0.58	B43254B9107M0*#
	100	30.0 × 20	0.60	B43254C9107M0*#
	120	22.0 × 35	0.66	B43254A9127M0*#
	120	25.4 × 25	0.64	B43254B9127M0*#

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- 7 = snap-in short terminals (4.0±0.5) mm
- 8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V _R V DC	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
400	120	30.0 × 25	0.70	B43254C9127M0*#
	120	35.0 × 20	0.71	B43254D9127M0*#
	150	22.0 × 40	0.78	B43254A9157M0*#
	150	25.4 × 30	0.76	B43254B9157M0*#
	150	30.0 × 25	0.78	B43254C9157M0*#
	150	35.0 × 20	0.80	B43254D9157M0*#
	180	22.0 × 45	0.89	B43254A9187M0*#
	180	25.4 × 35	0.88	B43254B9187M0*#
	180	30.0 × 30	0.91	B43254C9187M0*#
	180	35.0 × 25	0.93	B43254D9187M0*#
	220	22.0 × 50	1.03	B43254A9227M0*#
	220	25.4 × 40	1.03	B43254B9227M0*#
	220	30.0 × 30	1.00	B43254C9227M0*#
	220	35.0 × 25	1.03	B43254D9227M0*#
	270	25.4 × 45	1.19	B43254A9277M0*#
	270	30.0 × 35	1.17	B43254B9277M0*#
	270	35.0 × 30	1.20	B43254C9277M0*#
	330	25.4 × 50	1.37	B43254A9337M0*#
	330	30.0 × 40	1.36	B43254B9337M0*#
	330	35.0 × 30	1.33	B43254C9337M0*#
	390	30.0 × 45	1.54	B43254A9397M0*#
	390	35.0 × 35	1.52	B43254B9397M0*#
	470	30.0 × 50	1.76	B43254A9477M0*#
	470	35.0 × 40	1.74	B43254B9477M0*#
560	35.0 × 45	1.98	B43254A9567M0*#	
680	35.0 × 50	2.27	B43254A9687M0*#	
820	35.0 × 60	2.70	B43254A9827M0*#	
450	56	22.0 × 25	0.29	B43254A5566M0*#
	68	22.0 × 30	0.34	B43254A5686M0*#
	68	25.4 × 25	0.35	B43254B5686M0*#
	82	22.0 × 30	0.38	B43254A5826M0*#
	82	25.4 × 25	0.39	B43254B5826M0*#
	82	30.0 × 20	0.39	B43254C5826M0*#

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7 = snap-in short terminals (4.0±0.5) mm
8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V _R	C _R 120Hz 20 °C μF	Case dimensions d × l mm	I _{AC,R} 120 Hz 105 °C A	Ordering code
450	100	22.0 × 35	0.44	B43254A5107M0*#
	100	25.4 × 30	0.46	B43254B5107M0*#
	100	30.0 × 25	0.47	B43254C5107M0*#
	120	22.0 × 40	0.51	B43254A5127M0*#
	120	25.4 × 30	0.50	B43254B5127M0*#
	120	30.0 × 25	0.51	B43254C5127M0*#
	120	35.0 × 25	0.56	B43254D5127M0*#
	150	22.0 × 45	0.60	B43254A5157M0*#
	150	25.4 × 40	0.62	B43254B5157M0*#
	150	30.0 × 30	0.61	B43254C5157M0*#
	150	35.0 × 25	0.62	B43254D5157M0*#
	180	22.0 × 50	0.68	B43254A5187M0*#
	180	25.4 × 40	0.68	B43254B5187M0*#
	180	30.0 × 30	0.67	B43254C5187M0*#
	180	35.0 × 25	0.68	B43254D5187M0*#
	220	25.4 × 50	0.79	B43254A5227M0*#
	220	30.0 × 35	0.78	B43254B5227M0*#
	220	35.0 × 25	0.75	B43254C5227M0*#
	270	30.0 × 40	0.90	B43254A5277M0*#
	270	35.0 × 30	0.88	B43254B5277M0*#
330	30.0 × 45	1.04	B43254A5337M0*#	
330	35.0 × 35	1.03	B43254B5337M0*#	
390	30.0 × 50	1.18	B43254A5397M0*#	
390	35.0 × 40	1.17	B43254B5397M0*#	
470	35.0 × 45	1.34	B43254A5477M0*#	
560	35.0 × 50	1.52	B43254A5567M0*#	

* = Insulation feature

- 0 = PVC sleeve
- 6 = PET sleeve

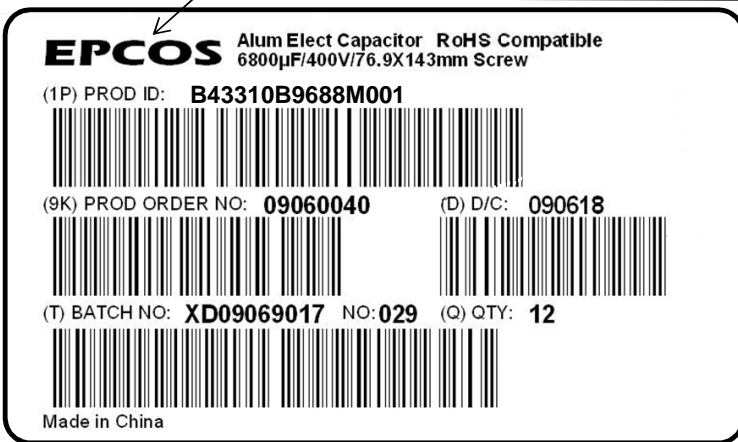
= Terminal style

- 0 = snap-in standard terminals (6.0±1) mm
- 2 = snap-in 3 terminals (4.0±0.5) mm
- 4 = snap-in 4 terminals (6.0±1) mm
- 7 = snap-in short terminals (4.0±0.5) mm
- 8 = vibration-resistance terminals (4.5±1) mm

Bar code label and marking of the capacitor 条形码标签和电容器标签

Below is an example of bar code label on package:

以下为包装箱上条形码标签示例:



Brand 品牌

- (1P) Ordering code 订购代码
- (9K) Product order number 订单号
- (D) Date code (yywwdd) 日期代码 (年月日)
- (T) Batch number 批号
- (Q) Quantity 数量

The two examples below shows how the capacitor sleeve are marked according to case height:

以下两个示例说明不同壳体高度电容器套管上的标签内容:

Case height

壳体高度

20mm		<p>Brand</p> <p>Part number (ordering code)</p> <p>Rated capacitance, tolerance, rated voltage,</p> <p>Climatic category, month and year of production</p>	<p>品牌</p> <p>料号 (订购代码)</p> <p>额定电容、容差、额定电压</p> <p>气候分类、月.年 (生产日期)</p>
25mm		<p>Brand</p> <p>Part number (ordering code)</p> <p>Rated capacitance, tolerance, rated voltage,</p> <p>Climatic category</p> <p>Month and year of production</p>	<p>品牌</p> <p>料号 (订购代码)</p> <p>额定电容、容差、额定电压</p> <p>气候分类</p> <p>月.年 (生产日期)</p>
>25mm		<p>Brand</p> <p>Part number (ordering code)</p> <p>Rated capacitance, tolerance, rated voltage,</p> <p>Climatic category</p> <p>Month and year of production</p>	<p>品牌</p> <p>料号 (订购代码)</p> <p>额定电容、容差、额定电压</p> <p>气候分类</p> <p>月.年 (生产日期)</p>

The climatic category is specified according to IEC 60068-1. If there is not enough space on the case, the following codes may be used:

气候类别符合 IEC 60068 - 1。如果壳体上没有足够空间，可使用以下代码:

E.g.: 40/085/56, in coded form, would read GPF 例如: 40/085/56的代码形式为GPF

1st letter (lower category temperature) 首字母 (下限类别温度)

Code letter 字母代码	F	G	H
Temperature 温度 (° C)	-55	-40	-25

2nd letter (upper category temperature) 第二字母 (上限类别温度)

Code letter 代码字母	K	M	P	S	U
Temperature 温度 (° C)	+125	+105(+100)	+85	+70	+60

3rd letter (humidity) 第三字母 (湿度)

Letter F: withstands IEC60068-2-78 Cab (damp heat, steady state), test duration 56 days.

字母F: 经受IEC 60068-2-78试验箱 (湿热、恒稳态), 试验周期56天。

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