系 列 :VT

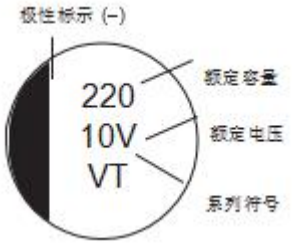
产品特点

- 高温无铅回流焊产品
- 保证时间 ： 105 ℃ 1000-2000 小时
- 可满足耐振要求
- 符合 RoHS 标准

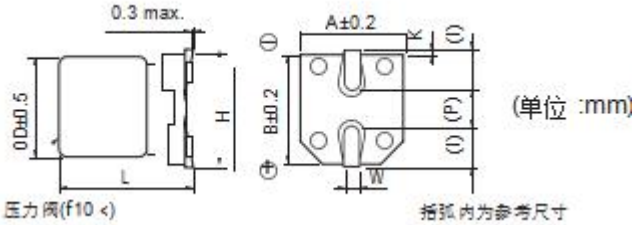
项目 Items	特性 Characteristics										
工作温度范围 Operating Temperature Range	-40℃ ~ +105℃										
额定电压范围 Rated Voltage Range	4V ~ 100V										
标称电容量范围 Nominal Capacitance Range	0.1 ~ 8200μF										
标称电容量允许偏差 Nominal Capacitance Tolerance	±20%（20℃，120Hz）										
漏电流 Leakage Current	I≤0.01C_RUR or 3(μA)，取较大者（2 分钟） C_R：标称电容量（μF） U_R：额定电压（V） I≤0.01C_RUR or 3(μA) Whichever is greater(at 20℃,After 2 minutes) C_R: Nominal Capacitance (μF) U_R: Rated voltages (V)										
损耗角正切（tgδ） Dissipation Factor (Max) 20℃, 120Hz	U_R (V)	4	6.3	10	16	25	35	50	63	80	100
	tgδ	0.35	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.12	0.12
	容量大于 1000uF 者，每增加 1000uF，其损耗角正切值增加 0.02 When nominal capacitance exceeds 1000uF,add 0.02 to the value above for each 1000uF increase										
耐久性 Load Life	+105℃施加额定电压 1000-2000 小时后，(D4~D6.3*5.4 尺寸≦10V:1000 小时，6.3*5.4 尺寸≧16V 以上：2000 小时)电容器应满足以下要求： After +105°C applies the rated voltage for 1000-2000 hours, (D4~D6.3*5.4 size≦ 10V: 1000 hours, 6.3*5.4 size≧ 16V or more: 2000 hours) the capacitor should meet the following requirements:										
	电容量变化率 Capacitance Change	±20%初始值以内（≤16V：±25%初始值以内） Within ±20% of the initial value (≤16V: within ±25% of the initial value)									
	损耗角正切 Dissipation Factor	≤ 200%初始规定值 Not more than 200% of the initial specified value									
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value									
高温贮存 Shelf Life	+105℃贮存 1000 小时后，电容器应满足以上耐久性要求 After storage for 1000 hours at +105℃, the capacitors shall meet the requirement of load life above										
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio (120Hz)	U_R (V)	4	6.3	10	16	25	35	50	63	80	100
	Z(-25℃)/Z(+20℃)	7	4	3	2	2	2	2	2	2	2
	Z(-40℃)/Z(+20℃)	15	8	6	4	4	3	3	3	3	3
耐焊接热 Resistance to Soldering Heat	在 250℃的条件下，电容器在热板上保持 30 秒，然后从热板上取出电容器，让其在室温下恢复，电容器应满足以下要求： The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement.										
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value									
	损耗角正切（tgδ） Dissipation Factor	≤初始规定值 Not more than the initial specified value									
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value									
AEC-Q200	符合 AEC-Q200										

标　示

例：10V.DC 220uF VT系列



外 观 尺 寸



ϕD	L	A, B	H.	I	W	P	K
4	5.4±0.3	4.3	5.5	1.8	0.5~0.8	1.0	$0.35^{+0.15}_{-0.20}$
5	5.4±0.3	5.3	6.5	2.1	0.5~0.8	1.3	
6.3	5.4±0.3	6.6	7.8	2.4	0.5~0.8	2.2	
6.3	7.7±0.3	6.6	7.8	2.4	0.5~0.8	2.2	
8	6.2±0.3	6.6	9.5	3.4	0.5~0.8	2.2	
8	10.5±0.5	8.3	10	3.4	0.8~1.1	3.1	0.70±0.20
8	12.5±0.5	8.3	10	3.4	0.8~1.1	3.1	0.70±0.20
10	7.7±0.3	10.3	12	3.5	0.7~1.3	4.5	0.70±0.20
10	10.5±0.5	10.3	12	3.5	0.7~1.3	4.5	0.70±0.20
10	12.5±0.5	10.3	12	3.5	0.7~1.3	4.5	0.70±0.20
12.5	13.5±0.5	13.5	15	4.7	1.1~1.4	4.4	0.70±0.20
12.5	16.5±0.5	13.5	15	4.7	1.1~1.4	4.4	0.70±0.20
16	16.5±0.5	17	19	5.5	1.1~1.4	6.4	0.70±0.20
16	21.5±0.5	17	19	5.5	1.1~1.4	6.4	0.70±0.20
18	16.5±0.5	19	21	6.7	1.1~1.4	6.4	0.70±0.20
18	21.5±0.5	19	21	6.7	1.1~1.4	6.4	0.70±0.20

特性一览表 1

额定电压 (V.DC)	静电容量 (±20%)(uF)	产品尺寸(mm)		电气特性		料号	最小包装数量 (PCS)
		ϕD	L	额定纹波电流 (120HZ) (+105℃)	tan δ (120HZ) (+20℃)		
4	33	4	5.4	31	0.35	VT0Q330MB054000LP0	2000
	47	4	5.4	31	0.35	VT0Q470MB054000LP0	2000
	100	5	5.4	55	0.35	VT0Q101MC054000LP0	1000
	150	6.3	5.4	95	0.35	VT0Q151ME054000LP0	1000
	220	6.3	5.4	100	0.35	VT0Q221ME054000LP0	1000
	330	6.3	7.7	140	0.35	VT0Q331ME077000LP0	1000
	470	6.3	7.7	150	0.35	VT0Q471ME077000LP0	1000
	680	8	10.5	340	0.35	VT0Q681MF105000LP0	500
	1000	8	10.5	350	0.35	VT0Q102MF105000LP0	500
	1500	10	10.5	500	0.35	VT0Q152MG105000LP0	500
6.3	22	4	5.4	29	0.28	VT0J220MB054000LP0	2000
	33	4	5.4	30	0.28	VT0J330MB054000LP0	2000
	33	5	5.4	34	0.28	VT0J330MC054000LP0	1000
	47	4	5.4	32	0.28	VT0J470MB054000LP0	2000
	47	5	5.4	46	0.28	VT0J470MC054000LP0	1000
	100	5	5.4	52	0.28	VT0J101MC054000LP0	1000

特性一览表 2

额定电压 (V.DC)	静电容量 (±20%)(uF)	产品尺寸(mm)		电气特性		料号	最小包装数量（PCS）
		φD	L	额定纹波电流 (120HZ) (+105℃)	tanδ (120HZ) (+20℃)		
6.3	100	6.3	5.4	71	0.28	VT0J101ME054000LP0	1000
	150	6.3	5.4	90	0.28	VT0J151ME054000LP0	1000
	220	6.3	5.4	95	0.28	VT0J221ME054000LP0	1000
	220	6.3	7.7	120	0.28	VT0J221ME077000LP0	1000
	330	6.3	7.7	130	0.28	VT0J331ME077000LP0	1000
	330	8	6.2	190	0.28	VT0J331MF062000LP0	1000
	330	8	10.5	290	0.28	VT0J331MF105000LP0	500
	470	6.3	7.7	140	0.28	VT0J471ME077000LP0	1000
	470	8	10.5	330	0.28	VT0J471MF105000LP0	500
	680	8	10.5	335	0.28	VT0J681MF105000LP0	500
	680	10	7.7	290	0.28	VT0J681MG077000LP0	500
	1000	8	10.5	340	0.28	VT0J102MF105000LP0	500
	1500	10	10.5	475	0.28	VT0J152MG105000LP0	500
	2200	12.5	13.5	680	0.30	VT0J222MI135000LP0	200
	3300	12.5	16.5	850	0.32	VT0J332MI165000LP0	200
	4700	16	16.5	1000	0.34	VT0J472MJ165000LP0	125
	6800	18	16.5	1290	0.38	VT0J682MK165000LP0	125
	8200	18	21.5	1450	0.42	VT0J822MK215000LP0	125
10	22	4	5.4	28	0.24	VT1A220MB054000LP0	2000
	33	4	5.4	29	0.24	VT1A330MB054000LP0	2000
	47	4	5.4	30	0.24	VT1A470MB054000LP0	2000
	47	5	5.4	45	0.24	VT1A470MC054000LP0	1000
	100	5	5.4	50	0.24	VT1A101MC054000LP0	1000
	100	6.3	5.4	69	0.24	VT1A101ME054000LP0	1000
	150	6.3	5.4	70	0.24	VT1A151ME054000LP0	1000
	220	6.3	5.4	95	0.24	VT1A221ME054000LP0	1000
	220	6.3	7.7	120	0.24	VT1A221ME077000LP0	1000
	220	8	6.2	175	0.24	VT1A221MF062000LP0	1000
	330	6.3	7.7	130	0.24	VT1A331ME077000LP0	1000
	330	8	10.5	305	0.24	VT1A331MF105000LP0	500
	470	6.3	7.7	140	0.24	VT1A471ME077000LP0	1000
	470	8	10.5	340	0.24	VT1A471MF105000LP0	500
	470	10	7.7	340	0.24	VT1A471MG077000LP0	500
	680	10	10.5	380	0.24	VT1A681MG105000LP0	500
	1000	10	10.5	410	0.24	VT1A102MG105000LP0	500
	1500	12.5	13.5	600	0.24	VT1A152MI135000LP0	200
	2200	12.5	13.5	680	0.26	VT1A222MI135000LP0	200
	3300	16	16.5	950	0.28	VT1A332MJ165000LP0	125
	4700	16	16.5	1000	0.30	VT1A472MJ165000LP0	125
	6800	18	16.5	1290	0.34	VT1A682MK165000LP0	125
	8200	18	21.5	1450	0.38	VT1A822MK215000LP0	125
16	10	4	5.4	28	0.20	VT1C100MB054000LP0	2000
	22	4	5.4	28	0.20	VT1C220MB054000LP0	2000
	22	5	5.4	39	0.20	VT1C220MC054000LP0	1000
	33	5	5.4	35	0.20	VT1C330MC054000LP0	1000
	47	5	5.4	45	0.20	VT1C470MC054000LP0	1000
	47	6.3	5.4	70	0.20	VT1C470ME054000LP0	1000

特性一览表 3

额定电压（V.DC）	静电容量（±20%）（uF）	产品尺寸(mm)		电气特性		料号	最小包装数量（PCS）
		∮D	L	额定纹波电流（120HZ）（+105℃）	tan δ（120HZ）（+20℃）		
16	100	6.3	5.4	120	0.20	VT1C101ME054000LP0	1000
	100	6.3	7.7	120	0.20	VT1C101ME077000LP0	1000
	100	8	6.2	125	0.20	VT1C101MF062000LP0	1000
	150	6.3	7.7	120	0.20	VT1C151ME077000LP0	1000
	220	6.3	7.7	150	0.20	VT1C221ME077000LP0	1000
	330	8	10.5	305	0.20	VT1C331MF105000LP0	500
	330	10	7.7	305	0.20	VT1C331MG077000LP0	500
	470	8	10.5	340	0.20	VT1C471MF105000LP0	500
	470	10	7.7	340	0.20	VT1C471MG077000LP0	500
	680	10	10.5	450	0.20	VT1C681MG105000LP0	500
	1000	10	10.5	550	0.20	VT1C102MG105000LP0	500
	1500	12.5	13.5	650	0.20	VT1C152MI135000LP0	200
	2200	16	16.5	900	0.22	VT1C222MJ165000LP0	125
	3300	16	16.5	950	0.24	VT1C332MJ165000LP0	125
	4700	18	16.5	1225	0.26	VT1C472MK165000LP0	125
25	4.7	4	5.4	22	0.16	VT1E4R7MC054000LP0	2000
	10	4	5.4	22	0.16	VT1E100MC054000LP0	2000
	10	5	5.4	28	0.16	VT1E100MC054000LP0	1000
	22	5	5.4	32	0.16	VT1E220MC054000LP0	1000
	22	6.3	5.4	55	0.16	VT1E220ME054000LP0	1000
	33	6.3	5.4	65	0.16	VT1E330ME054000LP0	1000
	47	6.3	5.4	70	0.16	VT1E470ME054000LP0	1000
	100	6.3	7.7	100	0.16	VT1E101ME077000LP0	1000
	100	8	6.2	145	0.16	VT1E101MF062000LP0	1000
	150	8	10.5	280	0.16	VT1E151MF105000LP0	500
	220	8	10.5	320	0.16	VT1E221MF105000LP0	500
	220	10	7.7	270	0.16	VT1E221MG077000LP0	500
	330	8	10.5	450	0.16	VT1E331MF105000LP0	500
	470	10	10.5	490	0.16	VT1E471MG105000LP0	500
	680	10	10.5	500	0.16	VT1E681MG105000LP0	500
	1000	12.5	13.5	550	0.16	VT1E102MI135000LP0	200
	1500	12.5	16.5	650	0.16	VT1E152MI165000LP0	200
	2200	16	16.5	900	0.18	VT1E222MJ165000LP0	125
	3300	18	16.5	1150	0.20	VT1E332MK165000LP0	125
	4700	18	21.5	1300	0.22	VT1E472MK165000LP0	125
35	4.7	4	5.4	22	0.14	VT1V4R7MB054000LP0	2000
	10	4	5.4	22	0.14	VT1V100MB054000LP0	2000
	10	5	5.4	30	0.14	VT1V100MC054000LP0	1000
	22	5	5.4	40	0.14	VT1V220MC054000LP0	1000
	22	6.3	5.4	60	0.14	VT1V220ME054000LP0	1000
	33	6.3	5.4	60	0.14	VT1V330ME054000LP0	1000
	47	6.3	5.4	65	0.14	VT1V470ME054000LP0	1000
	47	6.3	7.7	80	0.14	VT1V470ME077000LP0	1000
	47	8	6.2	105	0.14	VT1V470MF062000LP0	1000
	100	6.3	7.7	90	0.14	VT1V101ME077000LP0	1000
	100	8	10.5	296	0.14	VT1V101MF105000LP0	500
	150	8	10.5	300	0.14	VT1V151MF105000LP0	500
	150	10	7.7	300	0.14	VT1V151MG077000LP0	500
	220	10	10.5	435	0.14	VT1V221MG105000LP0	500

特性一览表 4

额定电压（V.DC）	静电容量（±20%）（uF）	产品尺寸(mm)		电气特性		料号	最小包装数量（PCS）
		∮D	L	额定纹波电流（120HZ）（+105℃）	tan δ（120HZ）（+20℃）		
35	330	10	10.5	450	0.14	VT1V331MG105000LP0	500
	470	10	10.5	480	0.14	VT1V471MG105000LP0	500
	680	12.5	13.5	600	0.14	VT1V681MI135000LP0	200
	1000	16	16.5	800	0.14	VT1V102MJ165000LP0	125
	1500	16	16.5	900	0.14	VT1V152MJ165000LP0	125
	2200	18	16.5	1050	0.16	VT1V222MJ165000LP0	125
50	0.1	4	5.4	2.3	0.12	VT1H0R1MB054000LP0	2000
	0.22	4	5.4	3.4	0.12	VT1HR22MB054000LP0	2000
	0.33	4	5.4	4.1	0.12	VT1HR33MB054000LP0	2000
	0.47	4	5.4	5	0.12	VT1HR47MB054000LP0	2000
	1	4	5.4	10	0.12	VT1H1R0MB054000LP0	2000
	2.2	4	5.4	16	0.12	VT1H2R2MB054000LP0	2000
	3.3	4	5.4	16	0.12	VT1H3R3MB054000LP0	2000
	4.7	4	5.4	16	0.12	VT1H4R7MB054000LP0	2000
	4.7	5	5.4	23	0.12	VT1H4R7MC054000LP0	1000
	10	5	5.4	25	0.12	VT1H100MC054000LP0	1000
	10	6.3	5.4	32	0.12	VT1H220ME054000LP0	1000
	22	6.3	5.4	35	0.12	VT1H220ME054000LP0	1000
	22	6.3	7.7	51	0.12	VT1H220ME077000LP0	1000
	33	6.3	7.7	70	0.12	VT1H330ME077000LP0	1000
	33	8	6.2	95	0.12	VT1H330MF062000LP0	1000
	47	6.3	7.7	80	0.12	VT1H470ME077000LP0	1000
	100	8	10.5	230	0.12	VT1H101MF105000LP0	500
	150	10	10.5	300	0.12	VT1H151MG105000LP0	500
	220	10	10.5	375	0.12	VT1H221MG105000LP0	500
	330	10	10.5	400	0.12	VT1H331MG105000LP0	500
	470	12.5	13.5	490	0.12	VT1H471MI135000LP0	200
	680	16	16.5	750	0.12	VT1H681MJ165000LP0	125
	1000	18	16.5	990	0.12	VT1H102MK165000LP0	125
63	0.1	4	5.4	1	0.12	VT1J0R1MB054000LP0	2000
	0.22	4	5.4	2.3	0.12	VT1JR22MB054000LP0	2000
	0.33	4	5.4	3.5	0.12	VT1JR33MB054000LP0	2000
	0.47	4	5.4	5	0.12	VT1JR47MB054000LP0	2000
	1	4	5.4	8	0.12	VT1J1R0MB054000LP0	2000
	2.2	4	5.4	12	0.12	VT1J2R2MB054000LP0	2000
	3.3	4	5.4	20	0.12	VT1J3R3MB054000LP0	2000
	4.7	5	5.4	25	0.12	VT1J4R7MC054000LP0	1000
	10	6.3	5.4	42	0.12	VT1J100ME054000LP0	1000
	10	8	6.2	46	0.12	VT1J100MF062000LP0	1000
	22	6.3	7.7	50	0.12	VT1J220ME077000LP0	1000
	33	8	10.5	90	0.12	VT1J330MF105000LP0	500
	47	8	10.5	100	0.12	VT1J470MF105000LP0	500
	100	10	10.5	150	0.12	VT1J101MG105000LP0	500
	150	10	10.5	170	0.12	VT1J151MG105000LP0	500
	220	10	10.5	205	0.12	VT1J221MG105000LP0	500
	220	12.5	13.5	250	0.12	VT1J221MI135000LP0	200
	330	12.5	16.5	300	0.12	VT1J331MI165000LP0	200
	470	16	16.5	450	0.12	VT1J471MJ165000LP0	125
	680	18	16.5	600	0.12	VT1J681MK165000LP0	125
	1000	18	21.5	800	0.12	VT1J102MK215000LP0	125

特性一览表 5

额定电压（V.DC）	静电容量（±20%)(uF)	产品尺寸(mm)		电气特性		料号	最小包装数量（PCS）
		∮D	L	额定纹波电流（120HZ）（+105℃）	tanδ（120HZ）（+20℃）		
80	22	8	10.5	100	0.12	VT1K220MF105000LP0	500
	33	8	10.5	100	0.12	VT1K330MF105000LP0	500
	47	10	10.5	150	0.12	VT1K470MG105000LP0	500
	100	10	10.5	180	0.12	VT1K101MG105000LP0	500
	150	12.5	13.5	280	0.12	VT1K151MI135000LP0	200
	220	16	16.5	410	0.12	VT1K221MJ165000LP0	125
	330	16	16.5	510	0.12	VT1K331MJ165000LP0	125
	470	18	16.5	560	0.12	VT1K471MK165000LP0	125
100	1	4	5.4	10	0.12	VT2A1R0MB054000LP0	2000
	2.2	5	5.4	32	0.12	VT2A2R2MC054000LP0	1000
	3.3	5	5.4	35	0.12	VT2A3R3MC054000LP0	1000
	4.7	5	5.4	40	0.12	VT2A4R7MC054000LP0	1000
	4.7	6.3	5.4	45	0.12	VT2A4R7ME054000LP0	1000
	10	6.3	5.4	47	0.12	VT2A100ME054000LP0	1000
	10	6.3	7.7	60	0.12	VT2A100ME077000LP0	1000
	22	6.3	7.7	63	0.12	VT2A220ME077000LP0	1000
	22	8	10.5	80	0.12	VT2A220MF105000LP0	500
	33	8	10.5	90	0.12	VT2A330MF105000LP0	500
	47	8	10.5	100	0.12	VT2A470MF105000LP0	500
	47	10	10.5	130	0.12	VT2A470MG105000LP0	500
	68	10	10.5	135	0.12	VT2A680MG105000LP0	500
	100	12.5	13.5	220	0.12	VT2A101MI135000LP0	125
	150	16	16.5	240	0.12	VT2A151MJ165000LP0	500
	220	16	16.5	410	0.12	VT2A221MJ165000LP0	500
	330	18	16.5	520	0.12	VT2A331MK165000LP0	500

■Frequency coefficient of ripple current

Frequency	50Hz	120Hz	300Hz	1KHz	10K~100KHz
Coefficient	0.70	1.00	1.17	1.36	1.50