

BTC series

- Low ESR / Low ESL 低 ESR / 低 ESL
- High Temp. Endurance: Load life of 3000 hours at 125 °C 耐高温: 直流负荷寿命 125°C-3000 小时
- Humidity Resistance: Load life of 1000 hours at 85°C 85%RH 耐高湿: 85°C 85%RH 负荷寿命 1000 小时
- RoHS 2.0 Compliant 符合 RoHS2.0 规范
- MSL 3 湿敏 3 级



Specifications 系列参数

Items 项目	Characteristics 特性			
Operating Temp. Range 工作温度范围	-55°C ~ +125°C			
Capacitance Range 容量范围	47 ~ 560μF			
Capacitance Tolerance 容量偏差	M : ±20%			
Rated Voltage Range 额定电压范围	2V ~ 10V DC			
Dissipation Factor 损耗角正切	≤0.06(120Hz, 20°C)			
Leakage Current 漏电流	I ≤ 0.1CV(μA) (after 2 minutes) (2V.DC ~ 6.3V.DC); I ≤ 0.3CV(μA) (after 2 minutes) (>6.3V.DC)			
Surge Voltage 浪涌电压	Rated working voltage × 1.25 (15°C~35°C) 额定电压的 1.25 倍 (恒定温度 15°C~35°C)			
Endurance 125°C · 3000h · at category voltage 寿命: 125°C 加载类别电压连续工作 3000 小时	Capacitance Change 容量变化	Within ±20% of the initial value 初始值±20%以内		
	Dissipation Factor 损耗角正切	≤ 2 times of the initial limit 不超初始规格值的 200%		
	Leakage current 漏电流	≤ 3 times of the initial limit 不超初始规格值的 300%		
Humidity Resistance 85°C · 85%RH · 1000h · at rated voltage 耐湿性 85°C · 85%RH 加载额定电压连续工作 1000 小时	Capacitance Change 容量变化	2.0V~2.5V	4V, 10V	6.3V
		+70%, -20%	+60%, -20%	+50%, -20%
	Dissipation Factor 损耗角正切	≤ 2 times of the initial limit 不超初始规格值的 200%		
	Leakage Current 漏电流	≤ 5 times of the initial limit 不超初始规格值的 500%		

Dimensions 尺寸(Unit单位:mm)

Size Code 尺寸代码	L	W	H	W1/W2	L1/L2
V	7.3±0.3	4.3±0.3	1.9±0.3	2.4±0.3	1.3/3.4±0.3

Marking 标识

		Date Code 制造周期说明: “2”: Last digit of Christian year 公历年最后一位 “35”: week 周代码	
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Characteristics List 规格特性表

W.V. 工作电压 (V)	Category Voltage 类别电压 (V)	Capacitance 容量 (μF)	Size 尺寸(mm)			ESR 等效串联电阻 (100kHz / +20℃) (mΩ)	Rated Ripple Current 额定纹波电流 (100 kHz / +45 ℃) (mA _{r.m.s})	Part Number* 物料编码*
			L	W	H			
2	1.6	180	7.3	4.3	1.9	15	5100	BTC181M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC181M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC181M002V00TB0009
		220	7.3	4.3	1.9	15	5100	BTC221M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC221M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC221M002V00TB0009
		270	7.3	4.3	1.9	15	5100	BTC271M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC271M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC271M002V00TB0009
			7.3	4.3	1.9	6	7500	BTC271M002V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC271M002V00TB04R5
		330	7.3	4.3	1.9	15	5100	BTC331M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC331M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC331M002V00TB0009
			7.3	4.3	1.9	6	7500	BTC331M002V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC331M002V00TB04R5
			7.3	4.3	1.9	3	10200	BTC331M002V00TB0003
		390	7.3	4.3	1.9	15	5100	BTC391M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC391M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC391M002V00TB0009
			7.3	4.3	1.9	6	7500	BTC391M002V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC391M002V00TB04R5
			7.3	4.3	1.9	3	10200	BTC391M002V00TB0003
		470	7.3	4.3	1.9	15	5100	BTC471M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC471M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC471M002V00TB0009
			7.3	4.3	1.9	6	7500	BTC471M002V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC471M002V00TB04R5
			7.3	4.3	1.9	3	10200	BTC471M002V00TB0003
		560	7.3	4.3	1.9	15	5100	BTC561M002V00TB0015
			7.3	4.3	1.9	12	5600	BTC561M002V00TB0012
			7.3	4.3	1.9	9	6300	BTC561M002V00TB0009
			7.3	4.3	1.9	6	7500	BTC561M002V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC561M002V00TB04R5
			7.3	4.3	1.9	3	10200	BTC561M002V00TB0003
2.5	2.0	150	7.3	4.3	1.9	9	6300	BTC151M2R5V00TB0009
		180	7.3	4.3	1.9	9	6300	BTC181M2R5V00TB0009
		220	7.3	4.3	1.9	15	5100	BTC221M2R5V00TB0015
			7.3	4.3	1.9	9	6300	BTC221M2R5V00TB0009
			7.3	4.3	1.9	7	7000	BTC221M2R5V00TB0007
		330	7.3	4.3	1.9	15	5100	BTC331M2R5V00TB0015
			7.3	4.3	1.9	9	6300	BTC331M2R5V00TB0009
			7.3	4.3	1.9	6	7500	BTC331M2R5V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC331M2R5V00TB04R5
			7.3	4.3	1.9	3	10200	BTC331M2R5V00TB0003
		390	7.3	4.3	1.9	15	5100	BTC391M2R5V00TB0015
			7.3	4.3	1.9	9	6300	BTC391M2R5V00TB0009
			7.3	4.3	1.9	6	7500	BTC391M2R5V00TB0006

W.V. 工作电压 (V)	Category Voltage 类别电压 (V)	Capacitance 容量 (μF)	Size 尺寸(mm)			ESR 等效串联电阻 (100kHz / +20℃) (mΩ)	Rated Ripple Current 额定纹波电流 (100 kHz / +45 °C) (mA.r.m.s)	Part Number* 物料编码*
			L	W	H			
2.5	2.0	390	7.3	4.3	1.9	4.5	8500	BTC391M2R5V00TB04R5
			7.3	4.3	1.9	3	10200	BTC391M2R5V00TB0003
		470	7.3	4.3	1.9	15	5100	BTC471M2R5V00TB0015
			7.3	4.3	1.9	9	6300	BTC471M2R5V00TB0009
			7.3	4.3	1.9	6	7500	BTC471M2R5V00TB0006
			7.3	4.3	1.9	4.5	8500	BTC471M2R5V00TB04R5
			7.3	4.3	1.9	3	10200	BTC471M2R5V00TB0003
4	3.2	82	7.3	4.3	1.9	9	6300	BTC820M004V00TB0009
		100	7.3	4.3	1.9	9	6300	BTC101M004V00TB0009
		150	7.3	4.3	1.9	15	5100	BTC151M004V00TB0015
			7.3	4.3	1.9	9	6300	BTC151M004V00TB0009
			7.3	4.3	1.9	7	7000	BTC151M004V00TB0007
		180	7.3	4.3	1.9	15	7000	BTC181M004V00TB0015
			7.3	4.3	1.9	12	5100	BTC181M004V00TB0012
			7.3	4.3	1.9	9	5600	BTC181M004V00TB0009
		220	7.3	4.3	1.9	15	6300	BTC221M004V00TB0015
			7.3	4.3	1.9	12	5100	BTC221M004V00TB0012
			7.3	4.3	1.9	9	5600	BTC221M004V00TB0009
		270	7.3	4.3	1.9	15	6300	BTC271M004V00TB0015
			7.3	4.3	1.9	9	5100	BTC271M004V00TB0009
		330	7.3	4.3	1.9	15	6300	BTC331M004V00TB0015
			7.3	4.3	1.9	9	5100	BTC331M004V00TB0009
			7.3	4.3	1.9	6	7500	BTC331M004V00TB0006
6.3	5.0	100	7.3	4.3	1.9	15	5100	BTC101M6R3V00TB0015
		120	7.3	4.3	1.9	15	5100	BTC121M6R3V00TB0015
			7.3	4.3	1.9	9	6300	BTC121M6R3V00TB0009
		150	7.3	4.3	1.9	15	5100	BTC151M6R3V00TB0015
			7.3	4.3	1.9	12	5600	BTC151M6R3V00TB0012
			7.3	4.3	1.9	9	6300	BTC151M6R3V00TB0009
		180	7.3	4.3	1.9	15	5100	BTC181M6R3V00TB0015
			7.3	4.3	1.9	9	6300	BTC181M6R3V00TB0009
		220	7.3	4.3	1.9	15	5100	BTC221M6R3V00TB0015
			7.3	4.3	1.9	9	6300	BTC221M6R3V00TB0009
10	8.0	47	7.3	4.3	1.9	28	3800	BTC470M010V00TB0028
			7.3	4.3	1.9	18	4700	BTC470M010V00TB0018
		68	7.3	4.3	1.9	28	4000	BTC680M010V00TB0028
			7.3	4.3	1.9	18	4700	BTC680M010V00TB0018
			7.3	4.3	1.9	15	5100	BTC680M010V00TB0015
		100	7.3	4.3	1.9	25	4000	BTC101M010V00TB0025
			7.3	4.3	1.9	15	5100	BTC101M010V00TB0015
			7.3	4.3	1.9	9	6300	BTC101M010V00TB0009
		120	7.3	4.3	1.9	25	4000	BTC121M010V00TB0025
			7.3	4.3	1.9	15	5100	BTC121M010V00TB0015
			7.3	4.3	1.9	9	6300	BTC121M010V00TB0009
		150	7.3	4.3	1.9	25	4000	BTC151M010V00TB0025
			7.3	4.3	1.9	15	5100	BTC151M010V00TB0015
			7.3	4.3	1.9	9	6300	BTC151M010V00TB0009

* Default tin plated terminals and 13 inch reels in Part Numbers 物料编码中默认镀锡端子和 13 英寸卷盘

Temperature Compensation Coefficient for Ripple Current 纹波电流温度系数

Temperature 温度	$T \leq 45^{\circ}\text{C}$	$45^{\circ}\text{C} < T \leq 85^{\circ}\text{C}$	$85^{\circ}\text{C} < T \leq 105^{\circ}\text{C}$	$105^{\circ}\text{C} < T \leq 125^{\circ}\text{C}$
Coefficient 系数 (2.0V ~ 6.3V)	1.00	0.70	0.25	0.25
Coefficient 系数 (10V)	1.00	0.80	0.50	0.25