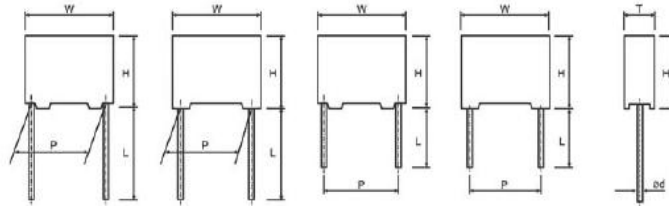
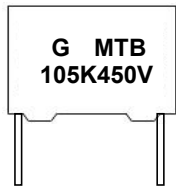


高温高压超小型金属化聚酯膜电容器（盒装型）

High Temp and High voltage mini-size Metallized polyester film capacitor (Box-type)

■ 外形图 Outline Drawing



■ 特点

- 金属化聚酯安全膜,无感卷绕结构
- 体积小,自愈性好
- 阻燃环氧树脂和壳体封装。(符合 UL 94/V-0)

■ 典型应用

- 用途:用于开关电源,电子镇流器和变频器等中间电路直流滤波(如 DC-link, PFC 等)。

■ Features

- Metallized polyester film, safety film non-induction wound constructure
- Small size and excellent self-healing property
- Flame retardant epoxy and box coating; (UL 94/V-0)

■ Type Application

- As intermediate circuit capacitor for SMPS, Electronic Ballast Inverter (i.e. DC-link, DC filter and P.F.C)

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 7332 (IEC 60384-2)				
气候类别 Climatic Category	40/105/21				
额定温度 Rated Temperature	85℃				
工作温度范围 Operating Temperature range	-40℃--+105℃. (+85℃~+105℃): derating factor 1.5% per °C for R.V(DC)				
额定电压 Rated Voltage	400VDC/450VDC, 500VDC/550VDC, 630VDC				
容量范围 Capacitance range	0.01μF~2.2μF				
容差 Capacitance tolerance	±5% (J), ±10% (K)				
耐电压 Voltage Proof	1.6×R.V(DC), 2s (between terminals)				
损失角 Dissipation Factor	≤ 1.0% (1KHz at 20~25℃)				
绝缘阻抗 Insulation Resistance	≥ 9 000MΩ, CR ≤ 0.33μF Measured at 100±10VDC/60s (20~25℃) ≥ 3 000s, CR > 0.33μF				
最大脉冲爬升速率 Maximum Pulse Rise Time(dv/ dt): 若实际工作电压 U 比额定电压 UR 低, 电容器可工作在更高的 dv/dt 场合。这样 dv/dt 允许值应为右表值乘 UR/U。 If the working voltage(U) is lower than the rated voltage(UR), the capacitor can be worked at a higher dv/dt. In this case, the maximum allowed dv/dt is obtain by multiplying the right value with UR/U.	UR (V)	dv/dt (V/μs)			
		P=7.5	P=10.0	P=15.0	P=22.5
	400/450	150	120	100	50
	500/550	200	180	150	80
630	350	300	200	100	

** For inquiry of items out of above range or with special dimensions. Please do not hesitate to contact with us for availability

不在本目录范围内的特殊规格或尺寸需求, 可联系我们依要求设计。

产品代码说明 Product Code System

■ 产品料号由 20 位数组成，如下：

For example: The part number, comprising 20 digits, is formed as follows.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
G	T	B	1	0	5	K	2	Y	D	3	2	L	2	0	0	D	9	R	0

第 1 位	公司代码 G	Digit 1	Company Code G
第 2~3 位	型号代码 MTB(代码 TB)=CL21B	Digit 2 to 3	Type Code MTB(Code TB)=CL21B
第 4~6 位	容值代码 举例： 105=10×10 ⁵ pF=1μF	Digit 4 to 6	Rated capacitance value Code For example : 105=10×10 ⁵ pF=1μF
第 7 位	容量偏差代码 J=±5%, K=±10%	Digit 7	Capacitance tolerance Code J=±5% K=±10%
第 8~9 位	额定电压代码 2G=400V 2Y=450V 2H=500V 2X=550V 2J=630V	Digit 8 to 9	Rated voltage Code 2G=400V 2Y=450V 2H=500V 2X=550V 2J=630V
第 10~11 位	脚距代码 B=7.5,C=10,D=15,E=22.5,F=27.5	Digit 10 to 11	Pitch Expressed by Case No. B=7.5,C=10,D=15,E=22.5,F=27.5
第 12~18 位	型号系列码 内部特征码	Digit 12~18	Type Series Code Internal use
第 13 位	脚型加工代码 L=长脚型(L≥20mm) H=直切短脚型 (L<20mm)	Digit 13	Lead form type code L=Long Lead(L≥20mm) H= short Lead(straight cut L<20mm)
第 14~16 位	引线长度(单位 mm) 035=3.5, 045=4.5, 060=6 150=15, 200=20, 250=25	Digit 14 to 16	Lead length and Taping code(unit:mm) 035=3.5, 045=4.5, 060=6 150=15, 200=20, 250=25
第 17 位	引线长误差代码 A=±0.3mm,B=±0.5mm,C=+0.5/-0mm D=±1mm, E=±2mm, F= ±0.4mm, G=最小	Digit 17	Tolerance code of lead length A=±0.3mm,B=±0.5mm,C=+0.5/-0mm D=±1mm, E=±2mm, G=Min
第 19 位	环保识别码 “H” Halogen--Free 无卤型 “R” RoHS 符合性	Digit 19	Environmental product code “H” Halogen--Free compliant “R” RoHS compliant
第 20 位	产品识别码	Digit 20	product ID for standard and non-standard product

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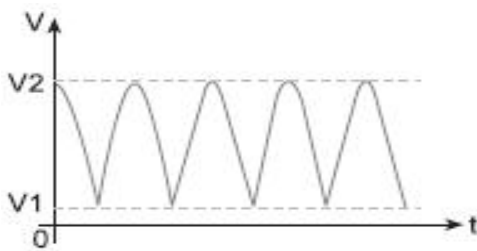
不在本目录范围内的特殊规格或尺寸需求，可联系我们依要求设计。

■ 电流对频率特性

允许电流通常由均方根电流和尖峰电流表示。均方根电流如下图所示

允许尖峰电流中的连续尖峰电流值应为持续电流，单个尖峰电流应为不连续电流，如开关动作中的脉冲电流。

最高次数的单峰电流次数应限制在 10000 次内(若有超过 10000 次，请告知我们)。



Here: $V_1 \geq 0, V_2 \leq U_R, V_{rms} = (V_2 - V_1) \div \sqrt{2}, I_{rms} = 2\pi f \times C \times (V_2 - V_1) \div \sqrt{2}$
 U_R is the rated voltage of the capacitor

■ Current VS Frequency Characteristic

A permissible current is regulated by both a root-mean-square value current and a peak current. A root-mean-square value current is to be a permissible current value to frequency attached.

The values of continuous peak current in the allowable peak current shall be those of continuous current, and the values of single peak current shall be those of discontinuous current such as rush current in switching on or off.

The highest number of times of single peak current shall be limited to 10,000 times. (In case of exceeding 10,000 times, please contact us.)

注：MTB 产品只适用于 DC 滤波和 DC 模块电路，意指施加给电容的电压必须是单向涟波电压，电压代表波型如下图所示。不适用于交流电路，对此有任何疑问请和我们的技术人员联系。

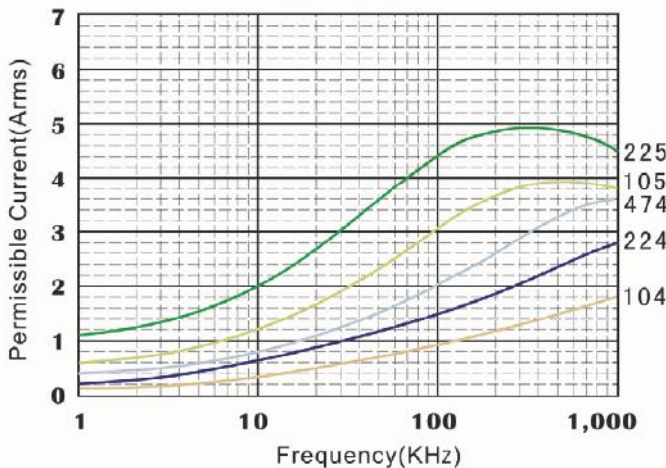
a: The MTB series is only recommended to use in DC-filter or DC-blocking circuits. It means the voltage applied to the capacitors must be unidirectional ripple voltage. The typical voltage curve is as following reference.

If you have any questions for this note, please feel free to contact our technical engineer.

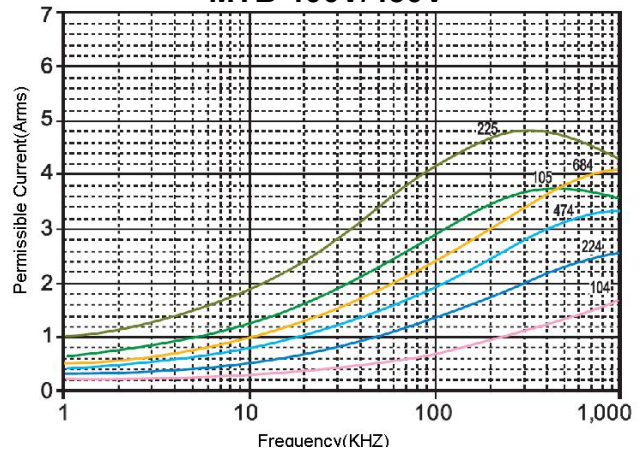
Characteristics of Permissible current (Arms) Vs Frequency
电流 Vs 频率特性图

Characteristics of Permissible current (Arms) Vs Frequency-(sinusoidal wave, $\Delta T \leq 12^\circ C$) 允许电流 (Arms) 对频率特性曲线图

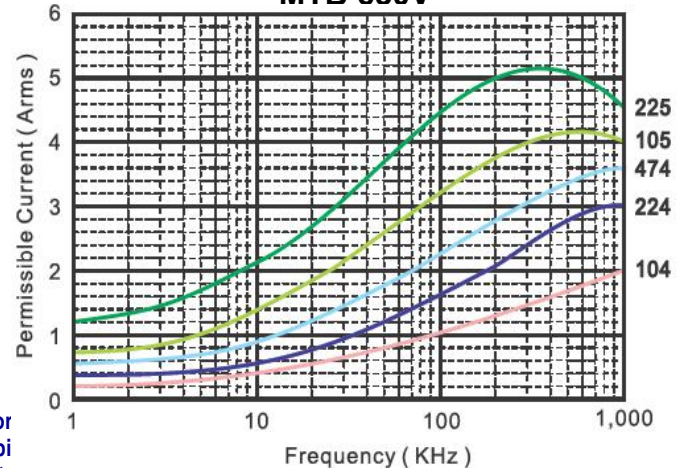
MTB 500V/550V



MTB 400V/450V



MTB 630V



不在本目录范围内的特殊规格或尺寸需求，请联系我们做委外设计。

■ 外形尺寸 Dimensions(mm)

400VDC#/ 450VDC						
C _R (μF)	Dimensions 尺寸 (mm)					Part number
	W (±0.5mm)	H (±0.5mm)	T (±0.5mm)	P (±1mm)	dΦ (±0.05mm)	
0.01	10.5	10	4	7.5	0.6	GTB103*2YB2■●□□□⊙■R0
0.015	10.5	10	4	7.5	0.6	GTB153*2YB2■●□□□⊙■R0
0.022	10.5	11	5	7.5	0.6	GTB223*2YB3■●□□□⊙■R0
0.033	10.5	12	6	7.5	0.6	GTB333*2YB4■●□□□⊙■R0
0.01	13.0	9	4	10	0.6	GTB103*2YC1■●□□□⊙■R0
0.015	13.0	11	5	10	0.6	GTB153*2YC2■●□□□⊙■R0
0.022	13.0	12	6	10	0.6	GTB223*2YC3■●□□□⊙■R0
0.033	13.0	11	5	10	0.6	GTB333*2YC2■●□□□⊙■R0
0.047	13.0	11	5	10	0.6	GTB473*2YC2■●□□□⊙■R0
0.068	13.0	11	5	10	0.6	GTB683*2YC2■●□□□⊙■R0
0.1	13.0	12	6	10	0.6	GTB104*2YC3■●□□□⊙■R0
0.15	13.0	11	5	10	0.6	GTB154*2YC2■●□□□⊙■R0
0.22	13.0	12	6	10	0.6	GTB224*2YC3■●□□□⊙■R0
0.33	13.0	12.5	7	10	0.6	GTB334*2YC4■●□□□⊙■R0
0.47	13.0	16	8	10	0.6	GTB474*2YC5■●□□□⊙■R0
0.1	18	11	5	15	0.6	GTB104*2YD1■●□□□⊙■R0
0.22	18	13	6.5	15	0.8	GTB224*2YD25●□□□⊙■R0
0.33	18	13.5	7.5	15	0.8	GTB334*2YD3■●□□□⊙■R0
0.47	18	12	6	15	0.8	GTB474*2YD2■●□□□⊙■R0
0.68	18	13.5	7.5	15	0.8	GTB684*2YD3■●□□□⊙■R0
1.0	17.5	17	7.5	15	0.8	GTB105*2YD32●□□□⊙■R0
1.5	18	18.5	11	15	0.8	GTB155*2YD6■●□□□⊙■R0
1.5	26.5	17	8.5	22.5	0.8	GTB155*2YE3■●□□□⊙■R0
2.2	26.5	19	10	22.5	0.8	GTB225*2YE4■●□□□⊙■R0

备注:

- | | |
|------------------------------------|--|
| 1. “*” 表示容量误差。 | “*”=capacitance tolerance code, J=±5%, K=±10%, M=±20%. |
| 2. “■” 表示内部特征码 | “■” =Internal use. |
| 3. “●” 表示引线加工形式代码 | “●” =Lead Form Code:” L”, ” H”, ” K”, ” M”, ” N” |
| 4. “□□□” 表示引线长度代码 | “□□□” =Lead Length Code:” 270”, ” 200”, ” 035” |
| 5. “⊙” 表示引线长度误差代码 | “⊙” =Lead Length Tolerance Code:” ±0.3”, ” ±0.5”, ” ±1”..... |
| 6. “R” =ROHS 符合性 | “R” =ROHS compliant |
| “H” =Halogen-Free 无卤型 | “H” =Halogen-Free compliant. |
| 7. “#” 当额定电压为 400V 时, 第 8~9 位是 2G. | “#” when the rated voltage is 400V, the digit 8~9 is 2G |

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■ 外形尺寸 Dimensions(mm)

500VDC#/ 550VDC						
C _R (uF)	Dimensions 尺寸 (mm)					Part number
	W (±0.5mm)	H (±0.5mm)	T (±0.5mm)	P (±1mm)	dΦ (±0.05mm)	
0.01	10.5	10	4	7.5	0.6	GTB103*2XB2■●□□□⊙■R0
0.015	10.5	10	4	7.5	0.6	GTB153*2XB2■●□□□⊙■R0
0.022	10.5	11	5	7.5	0.6	GTB223*2XB3■●□□□⊙■R0
0.033	10.5	12	6	7.5	0.6	GTB333*2XB4■●□□□⊙■R0
0.01	13	9	4	10	0.6	GTB103*2XC1■●□□□⊙■R0
0.015	13	11	5	10	0.6	GTB153*2XC2■●□□□⊙■R0
0.022	13	12	6	10	0.6	GTB223*2XC3■●□□□⊙■R0
0.033	13	11	5	10	0.6	GTB333*2XC2■●□□□⊙■R0
0.047	13	11	5	10	0.6	GTB473*2XC2■●□□□⊙■R0
0.068	13	11	5	10	0.6	GTB683*2XC2■●□□□⊙■R0
0.1	13	12	6	10	0.6	GTB104*2XC3■●□□□⊙■R0
0.15	13	12	6	10	0.6	GTB154*2XC3■●□□□⊙■R0
0.22	13	12.5	7	10	0.6	GTB224*2XC4■●□□□⊙■R0
0.33	13	16	8	10	0.6	GTB334*2XC5■●□□□⊙■R0
0.1	18	11	5	15	0.6	GTB104*2XD1■●□□□⊙■R0
0.22	18	12	6	15	0.8	GTB224*2XD2■●□□□⊙■R0
0.33	18	13.5	7.5	15	0.8	GTB334*2XD3■●□□□⊙■R0
0.47	18	14.5	8.5	15	0.8	GTB474*2XD4■●□□□⊙■R0
0.68	18	16	10	15	0.8	GTB684*2XD5■●□□□⊙■R0
0.47	26.5	17	7	22.5	0.8	GTB474*2XE2■●□□□⊙■R0
0.68	26.5	17	8.5	22.5	0.8	GTB684*2XE3■●□□□⊙■R0
1.0	26	20	11	22.5	0.8	GTB105*2XE5■●□□□⊙■R0

备注:

- | | |
|------------------------------------|--|
| 1. “*” 表示容量误差。 | “*”=capacitance tolerance code, J=±5%, K=±10%, M=±20%. |
| 2. “■” 表示内部特征码 | “■” =Internal use. |
| 3. “●” 表示引线加工形式代码 | “●” =Lead Form Code:” L” ,” H” ,” K” ,” M” ,” N” |
| 4. “□□□” 表示引线长度代码 | “□□□” =Lead Length Code:” 270” ,” 200” ,” 035” |
| 5. “⊙” 表示引线长度误差代码 | “⊙” =Lead Length Tolerance Code:” ±0.3” ,” ±0.5” ,” ±1”..... |
| 6. “R” =ROHS 符合性 | “R” =ROHS compliant |
| “H” =Halogen-Free 无卤型 | “H” =Halogen-Free compliant. |
| 7. “#” 当额定电压为 500V 时, 第 8~9 位是 2H. | “#” when the rated voltage is 500V, the digit 8~9 is 2H. |

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■ 外形尺寸 Dimensions(mm)

630VDC						
C _R (μF)	Dimensions 尺寸 (mm)					Part number
	W (±0.5mm)	H (±0.5mm)	T (±0.5mm)	P (±1mm)	dΦ (±0.05mm)	
0.01	10.5	10	4	7.5	0.6	GTB103*2JB2■●□□□⊙■R0
0.015	10.5	10	4	7.5	0.6	GTB153*2JB2■●□□□⊙■R0
0.022	10.5	11	5	7.5	0.6	GTB223*2JB3■●□□□⊙■R0
0.033	10.5	12	6	7.5	0.6	GTB333*2JB4■●□□□⊙■R0
0.01	13	9	4	10	0.6	GTB103*2JC1■●□□□⊙■R0
0.015	13	11	5	10	0.6	GTB153*2JC2■●□□□⊙■R0
0.022	13	12	6	10	0.6	GTB223*2JC3■●□□□⊙■R0
0.033	13	11	5	10	0.6	GTB333*2JC2■●□□□⊙■R0
0.047	13	11	5	10	0.6	GTB473*2JC2■●□□□⊙■R0
0.068	13	11	5	10	0.6	GTB683*2JC2■●□□□⊙■R0
0.1	13	12.5	7	10	0.6	GTB104*2JC4■●□□□⊙■R0
0.1	18	11	5	15	0.6	GTB104*2JD1■●□□□⊙■R0
0.15	18	12	6	15	0.8	GTB154*2JD2■●□□□⊙■R0
0.22	18	13.5	7.5	15	0.8	GTB224*2JD3■●□□□⊙■R0
0.33	18	14.5	8.5	15	0.8	GTB334*2JD4■●□□□⊙■R0
0.47	18	16	10	15	0.8	GTB474*2JD5■●□□□⊙■R0
0.68	18	18.5	11	15	0.8	GTB684*2JD6■●□□□⊙■R0
1.0	18	22	13	15	0.8	GTB105*2JD7■●□□□⊙■R0
0.47	26.5	17	7	22.5	0.8	GTB474*2JE2■●□□□⊙■R0
0.68	26.5	17	8.5	22.5	0.8	GTB684*2JE3■●□□□⊙■R0
1.0	26	20	11	22.5	0.8	GTB105*2JE5■●□□□⊙■R0

备注:

1. “*” 表示容量误差。
2. “■” 表示内部特征码
3. “●” 表示引线加工形式代码
4. “□□□” 表示引线长度代码
5. “⊙” 表示引线长度误差代码
6. “R” =ROHS 符合性
“H” =Halogen-Free 无卤型

“*”=capacitance tolerance code, J=±5%, K=±10%, M=±20%.

“■” =Internal use.

“●” =Lead Form Code:” L” ,” H” ,” K” ,” M” ,” N”

“□□□” =Lead Length Code:” 270” ,” 200” ,” 035”

“⊙” =Lead Length Tolerance Code:” ±0.3” ,” ±0.5” ,” ±1”

“R” =ROHS compliant

“H” =Halogen-Free compliant.

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