



PART NO.

HT Series

REVISIONS

ECN #

REV

DESCRIPTION

DRAWN

DATE

CHECKD

DATE

APPRVD

DATE

-

A

RELEASED

S. R

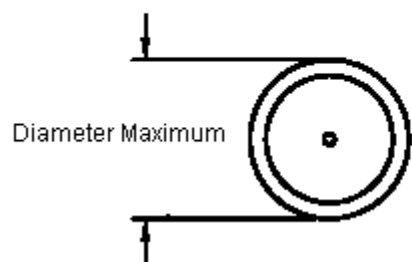
8/5/06

K. S

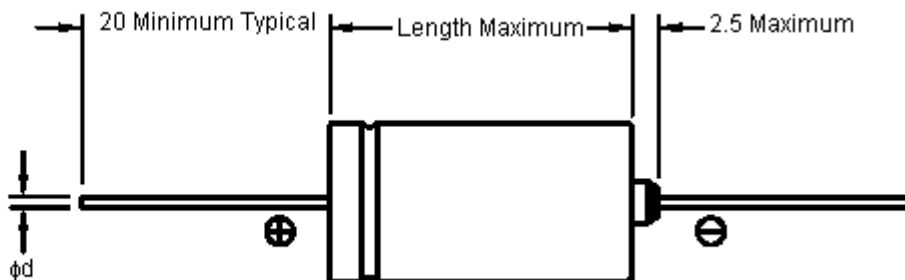
8/5/06

N. K

22/5/06



Diameter Maximum



Dimensions : Millimetres

Features:

- Excellent temperature performance.
- Suitable to use for industrial equipment.
- General purpose 105°C.
- Axial leaded electrolytic.

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DRAWN BY:

S. Ram

DATE:

08/05/2006

CHECKED BY:

K. Suresh

DATE:

08/05/2006

APPROVED BY:

N. Kiwomya

DATE:

22/05/2006

DRAWING TITLE:

HT Series - Axial Electrolytic Capacitors

SIZE
A

DWG NO.

M10000227

ELECTRONIC FILE
208520_DWGREV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 5

	PART NO. HT Series	REVISIONS								
		ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
		-	A	RELEASED	S. R	8/5/06	K. S	8/5/06	N. K	22/5/06

Characteristics

Item	Characteristic																																											
Operating temperature range	-40°C to +105°C.																																											
Capacitance tolerance	±20% (at 20°C, 120Hz).																																											
Leakage current	I = 0.02CV or 3µA whichever is greater (after 2 minutes applying the rated DC working voltage at 20°C) where C = rated capacitance in µF, V = rated DC working voltage in V.																																											
Dissipation factor (tan δ) (At 20°C, 120Hz)	<table><tr><td>Rated Voltage (V)</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>Tan δ</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td></tr></table> For capacitors whose capacitance exceeds 1000µF, the specification of tan δ is increased by 0.02 for every addition of 1000µF.	Rated Voltage (V)	10	16	25	35	50	63	100	Tan δ	0.20	0.17	0.15	0.12	0.10	0.09	0.08																											
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Surge voltage	<table><tr><td>Rated Voltage (V)</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>Surge Voltage (V)</td><td>13</td><td>20</td><td>32</td><td>44</td><td>63</td><td>79</td><td>125</td></tr></table>	Rated Voltage (V)	10	16	25	35	50	63	100	Surge Voltage (V)	13	20	32	44	63	79	125																											
Rated Voltage (V)	10	16	25	35	50	63	100																																					
Surge Voltage (V)	13	20	32	44	63	79	125																																					
Low temperature characteristics	1. Capacitance at +105°C shall not be higher than 115% of the value at 20°C, 120Hz. 2. Impedance ratio at 120Hz. <table><tr><td>Rated Voltage (V)</td><td></td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td rowspan="2">Z (-25°C)/Z (20°C)</td><td>(Ø <16)</td><td>3</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>(Ø ≥16)</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td rowspan="2">Z (-40°C)/Z (20°C)</td><td>(Ø <16)</td><td>6</td><td>6</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td></tr><tr><td>(Ø ≥16)</td><td>10</td><td>8</td><td>8</td><td>8</td><td>8</td><td>6</td><td>6</td></tr></table>	Rated Voltage (V)		10	16	25	35	50	63	100	Z (-25°C)/Z (20°C)	(Ø <16)	3	3	2	2	2	2	2	(Ø ≥16)	4	4	3	3	3	3	3	Z (-40°C)/Z (20°C)	(Ø <16)	6	6	4	4	3	3	3	(Ø ≥16)	10	8	8	8	8	6	6
Rated Voltage (V)		10	16	25	35	50	63	100																																				
Z (-25°C)/Z (20°C)	(Ø <16)	3	3	2	2	2	2	2																																				
	(Ø ≥16)	4	4	3	3	3	3	3																																				
Z (-40°C)/Z (20°C)	(Ø <16)	6	6	4	4	3	3	3																																				
	(Ø ≥16)	10	8	8	8	8	6	6																																				
Load life (After 1000 hours application of rated voltage at 85°C, capacitors meet the characteristics requirements listed at right)	<table><tr><td>Leakage Current</td><td>Initial specified value or less</td></tr><tr><td>Dissipation Factor</td><td>Less than 200% of the specified value</td></tr><tr><td>Capacitance Change</td><td>within ±20% of initial value</td></tr></table> After 1000 hours application of rated voltage at 105°C, capacitors meet the characteristics requirements listed at above.	Leakage Current	Initial specified value or less	Dissipation Factor	Less than 200% of the specified value	Capacitance Change	within ±20% of initial value																																					
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Dissipation Factor	Less than 200% of the specified value																																											
Capacitance Change	within ±20% of initial value																																											
Shelf life	After leaving capacitors under no load at 105°C for 1000 hours and applying voltage they meet the specified value for load life characteristics listed above.																																											
Marking	Printed with black colour letter on black sleeve.																																											

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	S. Ram	08/05/2006	HT Series - Axial Electrolytic Capacitors			
	CHECKED BY:	DATE:	SIZE A	DWG NO. M10000227	ELECTRONIC FILE 208520_DWG	REV A
	K. Suresh	08/05/2006				
	APPROVED BY:	DATE:	SCALE: NTS		U.O.M.: mm	
N. Kiwomya	22/05/2006					

	PART NO. HT Series	REVISIONS								
		ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
		-	A	RELEASED	S. R	8/5/06	K. S	8/5/06	N. K	22/5/06

Specifications							
Voltage (V)	Capacitance (µF)	Diameter	Length	d ±0.0.2	ESR	Allowable Ripple Current (mA)*	Part Number
25	10	5 ±0.5	13 ±1.5	0.6	19.9050	39	HT100MEB-0513(E)
	22	5 ±0.5			9.0470	60	HT220MEB-0513(E)
	47	6 ±0.5			4.2350	90	HT470M1EB-0613(E)
	100	8 ±0.5			1.9900	145	HT101M1EB-0813(E)
	220		0.9040		246	HT221M1EB-0816(E)	
	470	10 ±1.0	21 ±2.0		0.4230	432	MCHT471M1EB-1021(E)
	1000	13 ±1.0	22 ±2.0		0.1990	662	HT102M1EB-1322(E)
	2200	16 ±1.0	28 ±2.0	0.8	0.1030	1024	HT222M1EB-1628(E)
	4700	18 ±1.0	36 ±2.0		0.0590	1638	HT472M1EB-1836(E)
35	10	5 ±0.5	13 ±1.5	0.6	15.9240	44	HT100M1VB-0513(E)
	47	6.3 ±0.5	14 ±1.5		3.3880	114	HT470M1VB-6.314(E)
	100	8 ±0.5	16 ±1.5		1.5920	180	HT101M1VB-0816(E)
	220	10 ±1.0	17 ±2.0		0.7240	305	HT221M1VB-1017(E)
	470	13 ±1.0	22 ±2.0		0.3380	490	HT471M1VB-1322(E)
	1000		27 ±2.0		0.1592	721	HT102M1VB-1327(E)
	2200	16 ±1.0	36 ±2.0	0.8	0.0840	1177	HT222M1VB-1636(E)

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		S. Ram	08/05/2006	HT Series - Axial Electrolytic Capacitors					
		CHECKED BY:	DATE:	SIZE A	DWG NO. M10000227	ELECTRONIC FILE 208520_DWG	REV A		
		K. Suresh	08/05/2006						
		APPROVED BY:	DATE:	SCALE: NTS		U.O.M.: mm		SHEET: 4 OF 5	
		N. Kiwomya	22/05/2006						

	PART NO. HT Series	REVISIONS								
		ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
		-	A	RELEASED	S. R	8/5/06	K. S	8/5/06	N. K	22/5/06

Specifications

Voltage (V)	Capacitance (µF)	Diameter	Length	d ±0.0.2	ESR	Allowable Ripple Current (mA)*	Part Number
35	4700	22 ±1.0	42 ±2.0	0.8	0.0508	1878	HT472M1VB-2242(E)
63	10	6 ±0.5	13 ±1.5	0.6	11.9430	55	HT100M1JB-0613(E)
	20	6.3 ±0.5	14 ±1.5		5.4280	90	HT220M1JB-6.314(E)
	47	8 ±0.5	16 ±1.5		2.5000	155	HT470M1JB-0816(E)
	100	10 ±1.0	17 ±2.0		1.1000	248	HT101M1JB-1017(E)
	220	13 ±1.0	22 ±2.0		0.5000	420	HT221M1JB-1322(E)
	470		27 ±2.0		0.2000	632	HT471M1JB-1327(E)
	1000	16 ±1.0	33 ±2.0	0.8	0.1000	984	HT102M1JB-1633(E)
	2200	20 ±1.0	42 ±2.0		0.5000	1540	HT222M1JB-2042(E)
100	1	5 ±0.5	13 ±1.5	0.6	106.1000	15	HT010M2AB-0513(E)
	2.2				48.2000	22	HT2R2M2AB-0513(E)
	4.7	6 ±0.5			22.5000	37	HT4R7M2AB-0613(E)
	10	6.3 ±0.5	14 ±1.5		10.6000	64	HT100M2AB-6.314(E)
	22	8 ±0.5	16±1.5		4.8000	106	HT220M2AB-0816(E)
	47	10 ±1.0	21 ±2.0		2.2000	180	HT470M2AB-1021(E)
	100	13 ±1.0	22 ±2.0		1.0600	287	HT101M2AB-1322(E)

*Ripple Current at 85°C, 120Hz. Dimensions : Millimetres

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		K. Suresh	08/05/2006	A	M10000227	208520_DWG		A
		APPROVED BY:	DATE:					
		N. Kiwomya	22/05/2006					
		SCALE: NTS	U.O.M.: mm		SHEET: 5 OF 5			

SHEET: 6 OF 5