

### Snap-in Type

Series: **MD** Type: **TS**

Discontinued



#### ■ Features

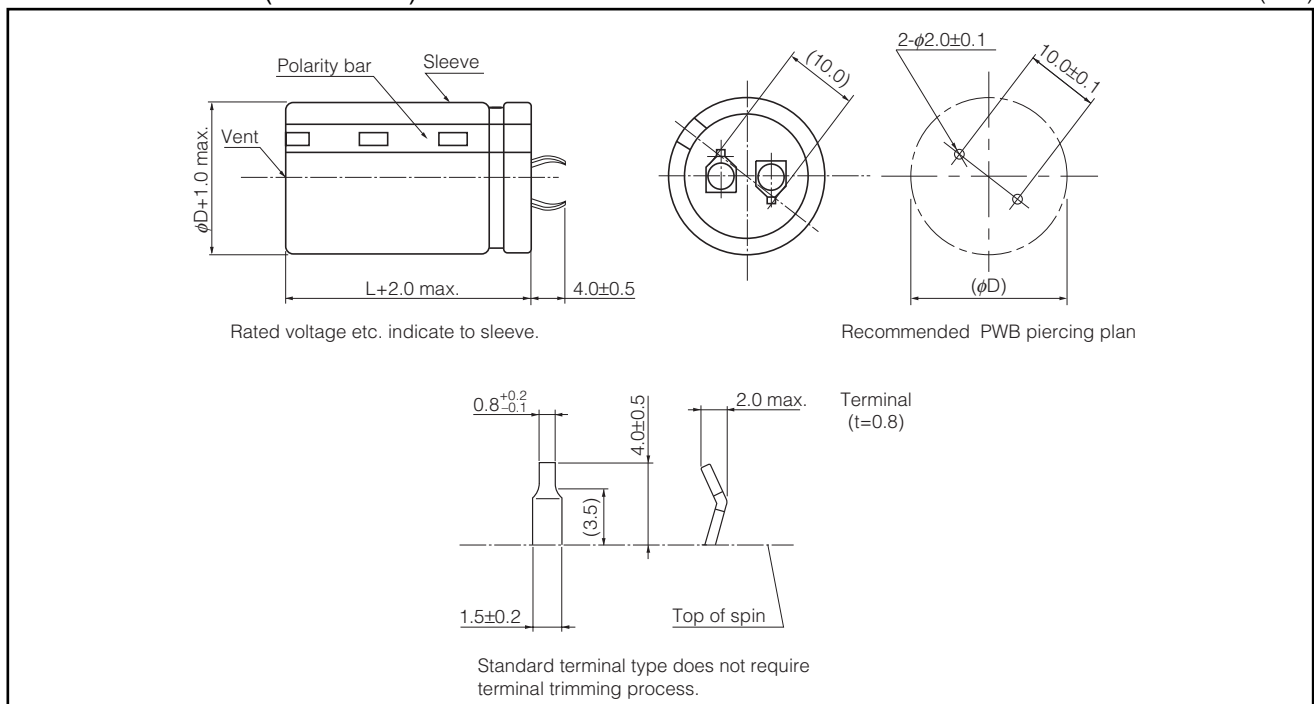
- Endurance: 105 °C 2000h
- Improved safety for DC overvoltage
- RoHS directive compliant

#### ■ Specifications

Category Temp. Range	-40 °C to +105 °C		-25 °C to +105 °C					
Rated W.V. Range	200 V.DC		400 V.DC					
Nominal Cap. Range	220 μF to 1500 μF		56 μF to 470 μF					
Capacitance Tolerance	±20 % (120 Hz/+20 °C)							
DC Leakage Current	√CV (μA) max. (200 W.V.), 3√CV (μA) max. (400 W.V.) After 5 minutes application of rated working voltage at 20 °C C : Capacitance (μF) V: W.V. (V.DC)							
tan δ	Please see the attached standard products list.							
Frequency Correction Factor for Ripple Current	Frequency (Hz)	50	60	100	120	500	1 k	10 k to
	Correction Factor	0.75	0.80	0.95	1.00	1.20	1.25	1.40
Endurance	After 2000 hours application of DC voltage with specified ripple current (≤ rated DC working voltage) at +105 °C±2 °C, the capacitors shall meet the following limits.							
	Capacitance change	≤ ±20 % of initial measured value						
	tan δ	≤ 200 % of initial specified value						
Shelf Life	After storage for 1000 hours at +105 °C±2 °C within no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)							
	Vent may work to prevent short circuit of fire under the following condition.							
Overvoltage	Condition	R.W.V.	Cap. (μF)	Condition				
				Current	DC V.			
		200 V	220 to 270	4 A	DC 375 V			
			330 to 390	5 A				
			470 to 1500	7 A				
400 V	56 to 82	2 A	DC 600 V					
	100 to 180	4 A						
220 to 470	7 A							

#### ■ Dimensions in mm (not to scale)

(mm)



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00 Sep. 2010

■ Standard Products **Discontinued**

W.V. (V. DC)	Cap. (120 Hz) (±20 %) (μF)	Case size		Part No. PET sleeve Terminal Length 4.0 mm (Without Top Plate)	Specification		Min. Packaging Q'ty  (pcs)
		Dia. (mm)	Length (mm)		Ripple Current (120 Hz) (+105 °C) (A r.m.s.)	tan δ (120 Hz) (+20 °C) max.	
200	220	22	25	EETLD2D221BJ	1.00	0.15	200
	270	22	30	EETLD2D271BJ	1.10	0.15	200
	330	22	30	EETLD2D331BJ	1.20	0.15	200
		25	25	EETLD2D331CJ	1.20	0.15	200
	390	22	35	EETLD2D391BJ	1.35	0.15	200
		25	30	EETLD2D391CJ	1.35	0.15	200
		30	25	EETLD2D391DJ	1.35	0.15	200
	470	22	40	EETLD2D471BJ	1.45	0.15	200
		25	30	EETLD2D471CJ	1.45	0.15	200
		30	25	EETLD2D471DJ	1.45	0.15	200
	560	22	45	EETLD2D561BJ	1.60	0.15	200
		25	35	EETLD2D561CJ	1.60	0.15	200
		30	30	EETLD2D561DJ	1.60	0.15	200
		35	25	EETLD2D561EJ	1.60	0.15	200
	680	25	40	EETLD2D681CJ	1.75	0.15	200
		30	30	EETLD2D681DJ	1.75	0.15	200
		35	25	EETLD2D681EJ	1.75	0.15	200
	820	25	45	EETLD2D821CJ	2.11	0.15	200
		30	35	EETLD2D821DJ	2.11	0.15	100
		35	30	EETLD2D821EJ	2.11	0.15	200
1000	30	45	EETLD2D102DJ	2.40	0.15	100	
	35	30	EETLD2D102EJ	2.40	0.15	200	
1200	30	45	EETLD2D122DJ	2.65	0.15	100	
	35	35	EETLD2D122EJ	2.65	0.15	100	
*	1500	35	45	EETLD2D152EJ	3.08	0.15	100
400	56	22	25	EETLD2G560BJ	0.45	0.15	200
	68	22	30	EETLD2G680BJ	0.51	0.15	200
	82	22	30	EETLD2G820BJ	0.58	0.15	200
		25	25	EETLD2G820CJ	0.58	0.15	200
	100	22	35	EETLD2G101BJ	0.66	0.15	200
		25	30	EETLD2G101CJ	0.66	0.15	200
		30	25	EETLD2G101DJ	0.66	0.15	200
	120	22	40	EETLD2G121BJ	0.78	0.15	200
		25	30	EETLD2G121CJ	0.78	0.15	200
		30	25	EETLD2G121DJ	0.78	0.15	200
	150	22	45	EETLD2G151BJ	0.85	0.15	200
		25	35	EETLD2G151CJ	0.85	0.15	200
		30	30	EETLD2G151DJ	0.85	0.15	200
		35	25	EETLD2G151EJ	0.85	0.15	200
	180	25	40	EETLD2G181CJ	0.95	0.15	200
		30	30	EETLD2G181DJ	0.95	0.15	200
		35	25	EETLD2G181EJ	0.95	0.15	200
	220	25	45	EETLD2G221CJ	1.24	0.15	200
		30	35	EETLD2G221DJ	1.24	0.15	100
		35	30	EETLD2G221EJ	1.24	0.15	200
270	30	40	EETLD2G271DJ	1.30	0.15	100	
	35	30	EETLD2G271EJ	1.30	0.15	200	
330	30	45	EETLD2G331DJ	1.47	0.15	100	
	35	35	EETLD2G331EJ	1.47	0.15	100	
390	35	40	EETLD2G391EJ	1.59	0.15	100	
*	470	35	45	EETLD2G471EJ	1.87	0.15	100

Endurance : 105 °C 2000 h, Terminal Pitch : 10 mm

\* When capacitors of φ35×45L and φ35×50L are mounted on PWB, reinforce them with mounting clamp or adhesives. (Avoid using adhesives including halogenated compositions.)

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