

### Snap-in Type

Series: ED Type : TS

Country of Origin

- Features
  - Endurance : 105°C 2000h
  - High ripple current capability in range of high frequency.
  - High ripple current and miniaturization to help miniaturization of equipment.

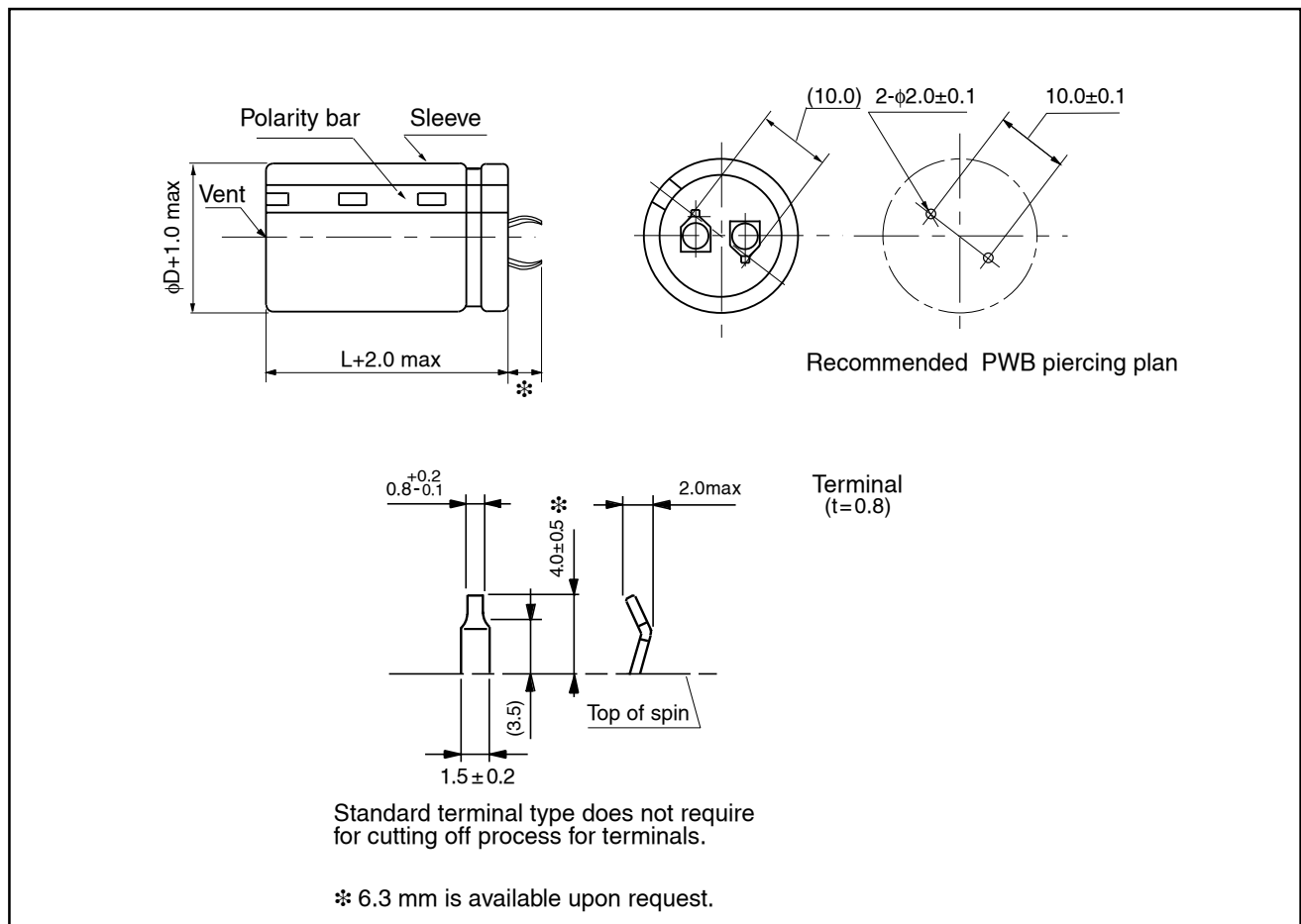
- Japan
- U.S.A
- Malaysia



#### ■ Specifications

Category temp. range	-40 to +105°C		-25 to +105°C					
Rated W.V. Range	200,220,250 V.DC		400, 420, 450 V .DC					
Nominal Cap. Range	220 to 2200 μF		56 to 560 μ F					
Capacitance Tolerance	±20 % (120Hz/+20°C)							
DC Leakage Current	3√CV (μA) max. 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	1k	10k to
	Correction Factor	0.5	0.55	0.68	0.70	0.85	0.90	1.00
Endurance	After 2000 hours application of DC voltage with specified ripple current (≤ rated DC working voltage) at +105°C, the capacitor shall meet the following limits.							
	Capacitance change	±20 % of initial measured value						
	tan δ	≤ 200 % of initial specified value						
Shelf Life	After storage for 1000hours at +105±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in iEndurancei.(With voltage treatment)							

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



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■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Part No.	Part No.	MinPackagingQty (pcs)
		Dia. (mm)	Length (mm)	Ripple current (50kHz) (+105°C) (A)	tan δ (120Hz) (+20°C)	PVC sleeve Terminal Length 4.0mm (Without P.V.C.plate)	PET sleeve Terminal Length 4.0mm (Without P.V.C.plate)	
200	270	22	25	2.03	0.15	EETED2D271H	EETED2D271HJ	200
	330	22	30	2.23	0.15	EETED2D331H	EETED2D331HJ	200
	390	22	30	2.44	0.15	EETED2D391H	EETED2D391HJ	200
		25	25	2.44	0.15	EETED2D391J	EETED2D391JJ	200
	470	22	35	2.64	0.15	EETED2D471H	EETED2D471HJ	200
		25	30	2.64	0.15	EETED2D471J	EETED2D471JJ	200
	560	22	40	3.05	0.15	EETED2D561H	EETED2D561HJ	200
		25	30	3.05	0.15	EETED2D561J	EETED2D561JJ	200
		30	25	3.05	0.15	EETED2D561K	EETED2D561KJ	200
	680	22	45	3.45	0.15	EETED2D681H	EETED2D681HJ	200
		25	35	3.45	0.15	EETED2D681J	EETED2D681JJ	200
		30	30	3.45	0.15	EETED2D681K	EETED2D681KJ	200
	820	22	50	3.76	0.15	EETED2D821H	EETED2D821HJ	200
		25	40	3.76	0.15	EETED2D821J	EETED2D821JJ	200
		30	30	3.76	0.15	EETED2D821K	EETED2D821KJ	200
		35	25	3.76	0.15	EETED2D821L	EETED2D821LJ	200
	1000	25	45	4.06	0.15	EETED2D102J	EETED2D102JJ	200
		30	35	4.06	0.15	EETED2D102K	EETED2D102KJ	100
		35	30	4.06	0.15	EETED2D102L	EETED2D102LJ	200
	1200	30	40	4.47	0.15	EETED2D122K	EETED2D122KJ	100
35		35	4.47	0.15	EETED2D122L	EETED2D122LJ	100	
1500	30	50	5.08	0.15	EETED2D152K	EETED2D152KJ	100	
	35	40	5.08	0.15	EETED2D152L	EETED2D152LJ	100	
1800	35	45	5.48	0.15	EETED2D182L	EETED2D182LJ	100	
2200	35	50	5.89	0.15	EETED2D222L	EETED2D222LJ	100	
220	270	22	30	2.03	0.15	EETED2Q271H	EETED2Q271HJ	200
	330	22	30	2.23	0.15	EETED2Q331H	EETED2Q331HJ	200
		25	25	2.23	0.15	EETED2Q331J	EETED2Q331JJ	200
	390	22	35	2.44	0.15	EETED2Q391H	EETED2Q391HJ	200
		25	30	2.44	0.15	EETED2Q391J	EETED2Q391JJ	200
	470	22	40	2.64	0.15	EETED2Q471H	EETED2Q471HJ	200
		25	30	2.64	0.15	EETED2Q471J	EETED2Q471JJ	200
		30	25	2.64	0.15	EETED2Q471K	EETED2Q471KJ	200
	560	22	45	3.05	0.15	EETED2Q561H	EETED2Q561HJ	200
		22	35	3.05	0.15	EETED2Q561J	EETED2Q561JJ	200
		30	30	3.05	0.15	EETED2Q561K	EETED2Q561KJ	200
	680	25	40	3.45	0.15	EETED2Q681J	EETED2Q681JJ	200
		30	30	3.45	0.15	EETED2Q681K	EETED2Q681KJ	200
		35	25	3.45	0.15	EETED2Q681L	EETED2Q681LJ	200
820	25	45	3.76	0.15	EETED2Q821J	EETED2Q821JJ	200	
	30	35	3.76	0.15	EETED2Q821K	EETED2Q821KJ	100	

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

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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■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Part No.	Part No.	MinPackagingQty (pcs)
		Dia. (mm)	Length (mm)	Ripple current (50kHz) (+105°C) (A)	tan δ (120Hz) (+20°C)	PVC sleeve Terminal Length 4.0mm (Without P.V.C.plate)	PET sleeve Terminal Length 4.0mm (Without P.V.C.plate)	
220	820	35	30	3.76	0.15	EETED2Q821L	EETED2Q821LJ	200
	1000	30	40	4.06	0.15	EETED2Q102K	EETED2Q102KJ	100
		35	35	4.06	0.15	EETED2Q102L	EETED2Q102LJ	100
	1200	30	45	4.47	0.15	EETED2Q122K	EETED2Q122KJ	100
		35	40	4.47	0.15	EETED2Q122L	EETED2Q122LJ	100
	1500	35	45	5.08	0.15	EETED2Q152L	EETED2Q152LJ	100
1800	35	50	5.48	0.15	EETED2Q182L	EETED2Q182LJ	100	
250	220	22	30	1.83	0.15	EETED2E221H	EETED2E221HJ	200
	270	22	30	2.03	0.15	EETED2E271H	EETED2E271HJ	200
		25	25	2.03	0.15	EETED2E271J	EETED2E271JJ	200
	330	22	35	2.23	0.15	EETED2E331H	EETED2E331HJ	200
		25	30	2.23	0.15	EETED2E331J	EETED2E331JJ	200
	390	22	40	2.44	0.15	EETED2E391H	EETED2E391HJ	200
		25	30	2.44	0.15	EETED2E391J	EETED2E391JJ	200
		30	25	2.44	0.15	EETED2E391K	EETED2E391KJ	200
	470	22	45	2.64	0.15	EETED2E471H	EETED2E471HJ	200
		25	35	2.64	0.15	EETED2E471J	EETED2E471JJ	200
		30	30	2.64	0.15	EETED2E471K	EETED2E471KJ	200
	560	25	40	3.05	0.15	EETED2E561J	EETED2E561JJ	200
		30	30	3.05	0.15	EETED2E561K	EETED2E561KJ	200
		35	25	3.05	0.15	EETED2E561L	EETED2E561LJ	200
	680	25	45	3.45	0.15	EETED2E681J	EETED2E681JJ	200
		30	35	3.45	0.15	EETED2E681K	EETED2E681KJ	100
		35	30	3.45	0.15	EETED2E681L	EETED2E681LJ	200
	820	30	40	3.76	0.15	EETED2E821K	EETED2E821KJ	100
		35	35	3.76	0.15	EETED2E821L	EETED2E821LJ	100
	1000	30	50	4.06	0.15	EETED2E102K	EETED2E102KJ	100
35		40	4.06	0.15	EETED2E102L	EETED2E102LJ	100	
1200	35	45	4.47	0.15	EETED2E122L	EETED2E122LJ	100	
1500	35	50	5.08	0.15	EETED2E152L	EETED2E152LJ	100	
400	82	22	25	1.14	0.15	EETED2G820H	EETED2G820HJ	200
	100	22	30	1.30	0.15	EETED2G101H	EETED2G101HJ	200
		25	25	1.30	0.15	EETED2G101J	EETED2G101JJ	200
	120	22	35	1.46	0.15	EETED2G121H	EETED2G121HJ	200
		25	30	1.46	0.15	EETED2G121J	EETED2G121JJ	200
	150	22	40	1.53	0.15	EETED2G151H	EETED2G151HJ	200
		25	30	1.53	0.15	EETED2G151J	EETED2G151JJ	200
		30	25	1.53	0.15	EETED2G151K	EETED2G151KJ	200
	180	22	45	1.60	0.15	EETED2G181H	EETED2G181HJ	200
		25	35	1.60	0.15	EETED2G181J	EETED2G181JJ	200
30		30	1.60	0.15	EETED2G181K	EETED2G181KJ	200	

Endurance : 105°C 2000h

Terminal Pitch : 10mm

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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■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Part No.	Part No.	MinPackagingQty (pcs)
		Dia. (mm)	Length (mm)	Ripple current (50kHz) (+105°C) (A)	tan δ (120Hz) (+20°C)	PVC sleeve Terminal Length 4.0mm (Without P.V.C.plate)	PET sleeve Terminal Length 4.0mm (Without P.V.C.plate)	
400	220	22	50	2.03	0.15	EETED2G221H	EETED2G221HJ	200
		25	40	2.03	0.15	EETED2G221J	EETED2G221JJ	200
		30	30	2.03	0.15	EETED2G221K	EETED2G221KJ	200
		35	25	2.03	0.15	EETED2G221L	EETED2G221LJ	200
	270	25	45	2.23	0.15	EETED2G271J	EETED2G271JJ	200
		30	35	2.23	0.15	EETED2G271K	EETED2G271KJ	100
		35	30	2.23	0.15	EETED2G271L	EETED2G271LJ	200
	330	30	40	2.44	0.15	EETED2G331K	EETED2G331KJ	100
		35	30	2.44	0.15	EETED2G331L	EETED2G331LJ	200
	390	30	45	2.64	0.15	EETED2G391K	EETED2G391KJ	100
		35	35	2.64	0.15	EETED2G391L	EETED2G391LJ	100
	470	35	40	2.84	0.15	EETED2G471L	EETED2G471LJ	100
560	35	45	3.05	0.15	EETED2G561L	EETED2G561LJ	100	
420	68	22	25	1.08	0.15	EETED2S680H	EETED2S680HJ	200
	82	22	30	1.14	0.15	EETED2S820H	EETED2S820HJ	200
		25	25	1.14	0.15	EETED2S820J	EETED2S820JJ	200
	100	22	30	1.30	0.15	EETED2S101H	EETED2S101HJ	200
		25	25	1.30	0.15	EETED2S101J	EETED2S101JJ	200
	120	22	35	1.46	0.15	EETED2S121H	EETED2S121HJ	200
		25	30	1.46	0.15	EETED2S121J	EETED2S121JJ	200
	150	22	40	1.53	0.15	EETED2S151H	EETED2S151HJ	200
		25	35	1.53	0.15	EETED2S151J	EETED2S151JJ	200
		30	25	1.53	0.15	EETED2S151K	EETED2S151KJ	200
	180	22	45	1.60	0.15	EETED2S181H	EETED2S181HJ	200
		25	40	1.60	0.15	EETED2S181J	EETED2S181JJ	200
		30	30	1.60	0.15	EETED2S181K	EETED2S181KJ	200
		35	25	1.60	0.15	EETED2S181L	EETED2S181LJ	200
	220	25	45	2.03	0.15	EETED2S221J	EETED2S221JJ	200
		30	35	2.03	0.15	EETED2S221K	EETED2S221KJ	100
		35	30	2.03	0.15	EETED2S221L	EETED2S221LJ	200
	270	25	50	2.40	0.15	EETED2S271J	EETED2S271JJ	200
		30	40	2.40	0.15	EETED2S271K	EETED2S271KJ	100
		35	30	2.40	0.15	EETED2S271L	EETED2S271LJ	200
	330	30	45	2.54	0.15	EETED2S331K	EETED2S331KJ	100
35		35	2.54	0.15	EETED2S331L	EETED2S331LJ	100	
390	30	50	2.73	0.15	EETED2S391K	EETED2S391KJ	100	
	35	40	2.73	0.15	EETED2S391L	EETED2S391LJ	100	
470	35	45	3.18	0.15	EETED2S471L	EETED2S471LJ	100	
450	56	22	25	0.95	0.15	EETED2W560H	EETED2W560HJ	200
	68	22	30	1.08	0.15	EETED2W680H	EETED2W680HJ	200
		25	25	1.08	0.15	EETED2W680J	EETED2W680JJ	200

Endurance : 105°C 2000h

Terminal Pitch : 10mm

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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W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Part No.	Part No.	MinPackagingQty (pcs)
		Dia. (mm)	Length (mm)	Ripple current (50kHz) (+105°C) (A)	tan δ (120Hz) (+20°C)	PVC sleeve Terminal Length 4.0mm (Without P.V.C.plate)	PET sleeve Terminal Length 4.0mm (Without P.V.C.plate)	
450	82	22	30	1.14	0.15	EETED2W820H	EETED2W820HJ	200
		25	25	1.14	0.15	EETED2W820J	EETED2W820JJ	200
	100	22	35	1.30	0.15	EETED2W101H	EETED2W101HJ	200
		25	30	1.30	0.15	EETED2W101J	EETED2W101JJ	200
	120	22	40	1.46	0.15	EETED2W121H	EETED2W121HJ	200
		25	35	1.46	0.15	EETED2W121J	EETED2W121JJ	200
		30	25	1.46	0.15	EETED2W121K	EETED2W121KJ	200
	150	22	45	1.53	0.15	EETED2W151H	EETED2W151HJ	200
		25	40	1.53	0.15	EETED2W151J	EETED2W151JJ	200
		30	30	1.53	0.15	EETED2W151K	EETED2W151KJ	200
		35	25	1.53	0.15	EETED2W151L	EETED2W151LJ	200
	180	22	50	1.60	0.15	EETED2W181H	EETED2W181HJ	200
		25	40	1.60	0.15	EETED2W181J	EETED2W181JJ	200
		30	30	1.60	0.15	EETED2W181K	EETED2W181KJ	200
		35	25	1.60	0.15	EETED2W181L	EETED2W181LJ	200
	220	25	45	2.03	0.15	EETED2W221J	EETED2W221JJ	200
		30	35	2.03	0.15	EETED2W221K	EETED2W221KJ	100
		35	30	2.03	0.15	EETED2W221L	EETED2W221LJ	200
	270	30	40	2.45	0.15	EETED2W271K	EETED2W271KJ	100
		35	35	2.45	0.15	EETED2W271L	EETED2W271LJ	100
330	30	50	2.64	0.15	EETED2W331K	EETED2W331KJ	100	
	35	40	2.64	0.15	EETED2W331L	EETED2W331LJ	100	
390	35	40	2.82	0.15	EETED2W391L	EETED2W391LJ	100	
470	35	50	3.53	0.15	EETED2W471L	EETED2W471LJ	100	

Endurance : 105°C 2000h

Terminal Pitch : 10mm

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