

AQ

Wide Temperature Range, Permissible
Abnormal Voltage
(Radial Lead Type) series

- Improved safety feature for abnormally excessive voltage.
- High ripple current product.
- Compliant to the RoHS directive (2002/95/EC).

AQ

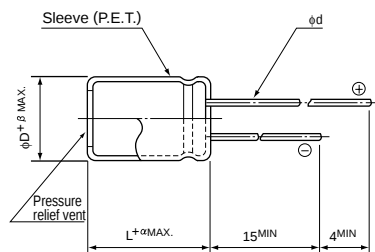
Smaller
AS



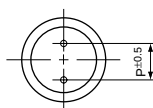
Specifications

Item	Performance Characteristics					
Category Temperature Range	-40 to +105°C					
Rated Voltage Range	200 · 400V					
Rated Capacitance Range	10 to 220μF					
Capacitance Tolerance	±20% at 120Hz, 20°C					
Leakage Current	After 1 minute's application of rated voltage, leakage current is 0.04CV+100 (μA) or less.					
Tangent of loss angle (tan δ)	Rated voltage (V)	200	400	Measurement frequency:120Hz, Temperature:20°C		
	tan δ (MAX.)	0.15	0.15			
Stability at Low Temperature	Rated voltage (V)		200	400	Measurement frequency : 120Hz	
	Impedance ratio ZT / Z20 (MAX.)		Z-25°C / Z+20°C	3		8
			Z-40°C / Z+20°C	6		10
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 105°C, the peak voltage shall not exceed the rated voltage.			Capacitance change	Within ±20% of the initial capacitance value	
				tan δ	200% or less than the initial specified value	
				Leakage current	Less than or equal to the initial specified value	
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.					
Safety Performance	The pressure relief vent will operate in normal conditions, with no dangerous conditons such as flames, ignitions or dispersion of pieces of the capacitor and / or case.					
	voltage (V)		Test conditions			
			Limited DC current		Test Voltage	
		200		4A		300VDC and 375VDC
	400		2A		500VDC and 600VDC	
Marking	Printed with white color letter on dark brown sleeve.					

Radial Lead Type



- Please refer to page 20 about the end seal configuration.



	φD	10	12.5	16	18	22
β	0.5	0.5	0.5	0.5	1.0	
P	5.0	5.0	7.5	7.5	10	
φd	0.6	0.6	0.8	0.8	1.0	

※ In case L>25 for φ12.5 (D) case sizes, lead diameter φ0.8 (d) will be applied.

α	(φD≤18) 2.0
	(φD>18) 3.0

Type numbering system (Example : 200V 100µF)

1	2	3	4	5	6	7	8	9	10	11	12
U	A	Q	2	D	1	0	1	M	H	D	
Size code											
Configuration ※											
Capacitance tolerance (±20%)											
Rated capacitance (100µF)											
Rated voltage (200V)											
Series name											
Type											
※ Configuration											
φ D	Pb-free leadwire Pb-free PET sleeve										
10	PD										
12.5 to 18	HD										
22	RD										

Dimensions

V(Code)		200 (2D)					400 (2G)			
Cap.(µF)	Code	φ10	φ12.5	φ16	φ18	φ22	φ12.5	φ16	φ18	φ22
10	100						12.5 × 20 100			
22	220	10 × 20 120					12.5 × 31.5 145	φ16 × 20 145		
33	330	10 × 25 160	φ12.5 × 20 160				12.5 × 40 195	φ16 × 25 195	* 18 × 20 195	
47	470	10 × 31.5 195	φ12.5 × 20 195					16 × 35.5 280	φ18 × 25 280	
56	560		12.5 × 25 210					16 × 35.5 320	φ18 × 31.5 320	* 22 × 20 280
68	680		12.5 × 25 250					16 × 40 350	φ18 × 35.5 350	* 22 × 25 320
82	820		12.5 × 31.5 285	φ16 × 20 285					18 × 40 420	
100	101		12.5 × 35.5 335	φ16 × 25 335	* 18 × 20 335					
150	151			16 × 31.5 435	φ18 × 25 435	* 22 × 20 435				
180	181			16 × 35.5 495	φ18 × 31.5 495	* 22 × 25 495				
220	221				18 × 35.5 575					Case size φD×L (mm) Rated ripple

Rated ripple current (mA rms) at 105°C 120Hz

Frequency coefficient of rated ripple current

Frequency	50, 60Hz	120Hz	300Hz	1kHz	10kHz or more
Coefficient	0.80	1.00	1.25	1.40	1.60

○ : In case of low profile type, [6] will be put at 12th digit of type numbering system.

* : For further low profile product, [3] will be put at 12th digit.

Please refer to page 20, 21, 22 about the formed or taped product spec.

Please refer to page 4 for the minimum order quantity.

CAT.8100Y