

AS

Wide Temperature Range, Miniature Type Permissible
Abnormal Voltage
series



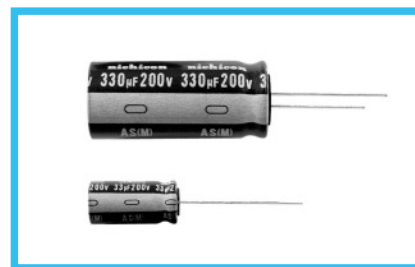
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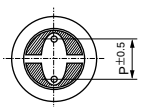
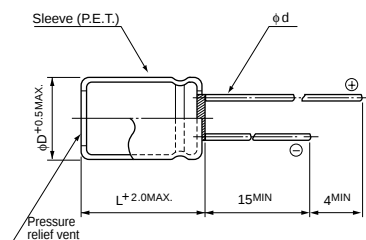
- Improved safety feature for abnormally excessive voltage.
- High ripple current product.
- Compliant to the RoHS directive (2002/95/EC).



Specifications

Item	Performance Characteristics				
Category Temperature Range	-40 to +105°C				
Rated Voltage Range	200V				
Rated Capacitance Range	33 to 330μF				
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	Measurement frequency:120Hz, Temperature:20°C		
	tan δ (MAX.)	0.15			
Stability at Low Temperature	Rated voltage (V)		200	Measurement frequency : 120Hz	
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	3		
		Z-40°C / Z+20°C	6		
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 leaving capacitors under no load at 105°C for 1000 hours 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	
Marking	200		4A (5A : 330μF)	300VDC and 375VDC	
	Printed with white color letter on dark brown sleeve.				

Radial Lead Type



	10	12.5	16	18
φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.8	0.8

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

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

Type numbering system (Example : 200V 220µF)

1	2	3	4	5	6	7	8	9	10	11	12
U	A	S	2	D	2	2	1	M	H	D	
											Size code
											Configuration※
											Capacitance tolerance (±20%)
											Rated capacitance (220µF)
											Rated voltage (200V)
											Series name
											Type

※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
10	PD
12.5 to 18	HD

Dimensions

		V	200 (2D)					
Cap. (µF)	Code	φD	φ10	φ12.5	φ16	φ18		
33	330		10 × 20	160			Case size φD × L (mm)	Rated ripple
47	470		10 × 25	195				
56	560			12.5 × 20	210			
68	680			12.5 × 25	320			
82	820			12.5 × 25	360			
100	101			12.5 × 31.5	430			
150	151				16 × 20	430		
180	181				16 × 25	460	18 × 20	460
220	221				16 × 31.5	600	18 × 25	600
270	271						18 × 31.5	710
330	331						18 × 35.5	890
							18 × 40	910

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

▲: In this case, [6] will be put at 12th digit of type numbering system.

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

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