

AT series 125°C High Reliability , High Ripple Current



Features

- ◆ Voltage Range: 16V to 40Vdc, Capacitance Range: 27 to 560 μ F
- ◆ Endurance Range: 125°C 2,000 hours to 3,000 hours
- ◆ RoHS Compliant
- ◆ AEC-Q200 Compliant

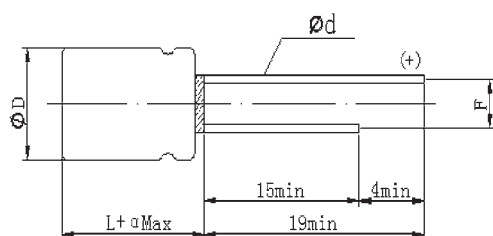
Specifications

Items	Performance Characteristics									
Operating Temperature Range	-55°C~+125°C									
Rated Voltage Range	16~40V DC									
Surge Voltage (V)	<table border="1"> <tr> <td>16</td> <td>25</td> <td>35</td> <td>40</td> </tr> <tr> <td>20</td> <td>32</td> <td>44</td> <td>50</td> </tr> </table>		16	25	35	40	20	32	44	50
16	25	35	40							
20	32	44	50							
Capacitance Range	27 to 560 μ F									
Capacitance Tolerance	$\pm 20\%$ (120Hz , +20°C)									
Leakage Current (+20°C , max)	0.01CV or 3 μ A, whichever is greater (Rated voltage applied, after 2 minutes at 20°C)									
Dissipation Factor (tan δ , at 120Hz , 20°C)	Not to exceed the values shown in Standard Ratings									
ESR (at 100kHz , 20°C)	Not to exceed the values shown in Standard Ratings									
Endurance	105°C rated voltage applied (with the rated ripple current)	Test								
		16V	ϕ 6.3: 2,000hours, D \geq ϕ 8: 2,500hours							
		$\geq 25V$	ϕ 6.3: 2,000hours, D \geq ϕ 8: 3,000hours							
		$\Delta C/C$	Within $\pm 30\%$ of the initial value							
		tan δ	Less than 200% of the specified value							
ESR	Less than 200% of the specified value									
LC	Less than the specified value									

Multiplier for Ripple Current vs. Frequency

Frequency	120Hz \leq freq.<1kHz	1KHz \leq freq.<10kHz	10kHz \leq freq.<100kHz	100kHz \leq freq.<300kHz
Coefficient	0.1	0.3	0.6	1.0

Diagram of Dimensions:(unit:mm)



$\Phi D \times L$	$\Phi D + 0.5 \text{max.}$	α	$F \pm 0.5$	$\Phi d \pm 0.05$
6.3x8	6.3	1.0	2.5	0.6
8x9	8.0	1.5	3.5	0.6
10x10	10.0	1.5	5.0	0.6
10x12.5	10.0	1.5	5.0	0.6

Standard Ratings

W.V. (V)	Cap(μF)	Size φ DxL(mm)	L.C. (μA,2min)	tg δ (120Hz,20°C)	ESR (mΩ),100KHz)	Maximum Permissible Ripple Current(mA,r.m.s)
16	120	6.3x8	19.2	0.16	32	1440
	270	8x9	43.2	0.16	23	1970
	470	10x10	75.2	0.16	18	2620
	560	10x12.5	89.6	0.16	14	3030
25	68	6.3x8	17	0.16	35	1380
	150	8x9	37.5	0.16	25	1880
	270	10x10	67.5	0.16	19	2500
	330	10x12.5	82.5	0.16	14	2890
35	47	6.3x8	16.5	0.16	45	1280
	100	8x9	35	0.16	28	1780
	150	10x10	52.5	0.16	20	2440
	220	10x12.5	77	0.16	15	2800
40	27	6.3x8	10.8	0.16	48	1230
	56	8x9	22.4	0.16	30	1710
	100	10x10	40	0.16	21	2360
	120	10x12.5	48	0.16	16	2700

Ripple Current(mA,rms)at 125°C,100KHz