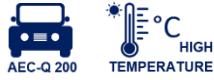


AT SERIES ■ LONG LIFE AT 125°C UP TO 4 000 HOURS

KEY FEATURES



- HYBRID CONDUCTIVE POLYMER • THT type
- Endurance: 125°C • 2 000 up to 4 000 hours
- Low ESR and high ripple current
- Superior electrical stability over application lifetime
- AEC-Q200 version available

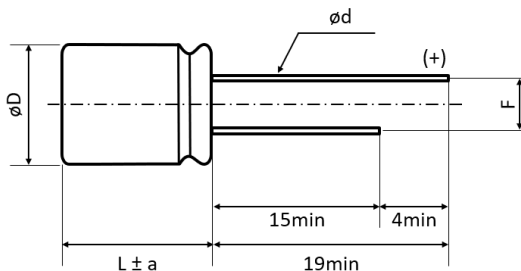


SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +125°C
Rated Voltage Range	V_R	16 ~ 100V DC
Surge Voltage	V_S	($V_R \leq 100V$): $V_S = 1.25 \cdot V_R$
Capacitance Range	C_R	8.2 ~ 1500 μ F
Cap. Tolerance	ΔC	$\pm 20\%$ (120Hz • 20°C)
Leakage Current (20°C • V_R applied)	I_{LEAK}	Not to exceed the values shown in standard ratings After 2 minutes
Dissipation Factor % (20°C • 120Hz)	$\tan\delta$	Not to exceed the values shown in standard ratings
Equivalent Series Resistance (20°C • 100kHz)	ESR	Not to exceed the values shown in standard ratings

Lifetime Test			
Endurance 125°C (V_R & I_R applied)	Test	4 000 hours	$\geq \phi D 8$
		2 000 hours	$\leq \phi D 6.3$
	$\Delta C/C_R$	Within $\pm 30\%$ of the initial value	
	$\tan\delta$	Less than 200% of the specified value	
	ESR	Less than 200% of the specified value	
	I_{Leak}	Less than the specified value	

DIMENSIONS ■ All dimensions in mm



ϕD	L	$\phi D \pm 0.5$	a	F ± 0.5	$\phi d \pm 0.05$
6.3	8	6.3	1	2.5	0.6
8	9	8	1.5	3.5	0.6
8	11.5	8	1.5	3.5	0.6
10	10	10	1.5	5	0.6
10	12.5	10	1.5	5	0.6
10	18	10	2	5	0.6

STANDARD RATINGS

V_R (V)	C_R (μF)	$\varnothing D$ (mm)	L (mm)	I_{LEAK} (μA , 2min)	$\tan\delta$ +20°C • 120Hz (%)	Max. ESR +20°C • 100kHz (m Ω)	I_R • Max. Ripple Current +125°C • 100kHz (mA rms)	CapXon Part Number
16	120	6.3	8	19.2	16	32	1440	AT121M016E080PTC <input type="checkbox"/>
	270	8	9	43.2	16	23	1970	AT271M016F090PTD <input type="checkbox"/>
	330	8	11.5	52.8	16	20	2340	AT331M016F115PTD <input type="checkbox"/>
	470	10	10	75.2	16	18	2620	AT471M016G100PTA <input type="checkbox"/>
	560	10	12.5	89.6	16	14	3030	AT561M016G125PTA <input type="checkbox"/>
	1500	10	18	240.0	16	12	4000	AT152M016G180PTA <input type="checkbox"/>
25	68	6.3	8	17.0	16	35	1380	AT680M025E080PTC <input type="checkbox"/>
	150	8	9	37.5	16	25	1880	AT151M025F090PTD <input type="checkbox"/>
	220	8	11.5	55.0	16	22	2230	AT221M025F115PTD <input type="checkbox"/>
	270	10	10	67.5	16	19	2500	AT271M025G100PTA <input type="checkbox"/>
	330	10	12.5	82.5	16	14	2890	AT331M025G125PTA <input type="checkbox"/>
	1000	10	18	250.0	16	12	4000	AT102M025G180PTA <input type="checkbox"/>
35	47	6.3	8	16.5	16	45	1280	AT470M035E080PTC <input type="checkbox"/>
	100	8	9	35.0	16	28	1780	AT101M035F090PTD <input type="checkbox"/>
	150	8	11.5	52.5	16	25	2100	AT151M035F115PTD <input type="checkbox"/>
	150	10	10	52.5	16	20	2440	AT151M035G100PTA <input type="checkbox"/>
	220	10	12.5	77.0	16	15	2800	AT221M035G125PTA <input type="checkbox"/>
	680	10	18	238.0	16	14	3700	AT681M035G180PTA <input type="checkbox"/>
40	27	6.3	8	10.8	16	48	1230	AT270M040E080PTC <input type="checkbox"/>
	56	8	9	22.4	16	30	1710	AT560M040F090PTD <input type="checkbox"/>
	82	8	11.5	32.8	16	27	2000	AT820M040F115PTD <input type="checkbox"/>
	100	10	10	40.0	16	21	2360	AT101M040G100PTA <input type="checkbox"/>
	120	10	10	48.0	16	20	2400	AT121M040G100PTA <input type="checkbox"/>
	180	10	12.5	72.0	16	18	2550	AT181M040G125PTA <input type="checkbox"/>
50	15	6.3	8	7.5	16	80	960	AT150M050E080PTC <input type="checkbox"/>
	33	8	9	16.5	16	35	1330	AT330M050F090PTD <input type="checkbox"/>
	47	8	11.5	23.5	16	30	1520	AT470M050F115PTD <input type="checkbox"/>
	56	10	10	28.0	16	30	1850	AT560M050G100PTA <input type="checkbox"/>
	82	10	12.5	41.0	16	25	2120	AT820M050G125PTA <input type="checkbox"/>
	220	10	18	110.0	16	15	3500	AT221M050G180PTA <input type="checkbox"/>
63	10	6.3	8	6.3	16	100	840	AT100M063E080PTC <input type="checkbox"/>
	22	8	9	13.9	16	40	1240	AT220M063F090PTD <input type="checkbox"/>
	27	8	11.5	17	16	35	1400	AT270M063F115PTD <input type="checkbox"/>
	33	10	10	20.8	16	35	1680	AT330M063G100PTA <input type="checkbox"/>
	47	10	10	29.6	16	35	1680	AT470M063G100PTA <input type="checkbox"/>
	56	10	12.5	35.3	16	30	1920	AT560M063G125PTA <input type="checkbox"/>
	150	10	18	94.5	16	18	3200	AT151M063G180PTA <input type="checkbox"/>
80	8.2	8	9	6.6	16	90	840	AT8R2M080F090PTD <input type="checkbox"/>
	15	8	11.5	12	16	70	1120	AT150M080F115PTD <input type="checkbox"/>
	12	10	10	9.6	16	70	1280	AT120M080G100PTA <input type="checkbox"/>
	15	10	10	12	16	70	1280	AT150M080G100PTA <input type="checkbox"/>
	18	10	12.5	14.4	16	60	1460	AT180M080G125PTA <input type="checkbox"/>

 see description at end of standard ratings

Part number shows taped version with straight leads and Ammo Pack packaging.

See "PACKAGING INFORMATION" for further lead treatment options.

STANDARD RATINGS

V_R (V)	C_R (μ F)	ϕ D (mm)	L (mm)	I_{LEAK} (μ A, 2min)	$\tan\delta$ +20°C • 120Hz (%)	Max. ESR +20°C • 100kHz (m Ω)	I_R - Max. Ripple Current +125°C • 100kHz (mA rms)	CapXon Part Number
100	8.2	8	9	8.2	16	100	800	AT8R2M100F090PTD <input type="checkbox"/>
	10	8	11.5	10	16	80	1040	AT100M100F115PTD <input type="checkbox"/>
	10	10	10	10	16	80	1160	AT100M100G100PTA <input type="checkbox"/>
	12	10	10	12	16	80	1160	AT120M100G100PTA <input type="checkbox"/>
	15	10	12.5	15	16	70	1320	AT150M100G125PTA <input type="checkbox"/>
	47	10	12.5	15	16	70	1320	AT470M100G125PTA <input type="checkbox"/>

: Leave **blank** for Standard type

: Enter **X** for AEC-Q200 type

Part number shows taped version with straight leads and Ammo Pack packaging.
See "PACKAGING INFORMATION" for further lead treatment options.
MULTIPLIER K_f for RIPPLE CURRENT vs. FREQUENCY

Frequency (Hz)	120 ≤ Freq. < 1k	1k ≤ Freq. < 10k	10k ≤ Freq. < 100k	100k ≤ Freq. < 300k
Coefficient K_f	0.1	0.3	0.6	1

PRECAUTIONS, GUIDELINES AND PACKAGING INFORMATION

Unless otherwise agreed in individual specifications, all products are subject to our "General Precautions and Guidelines" as well as our "Packaging Information". Please refer to the following links in the table.

General Precautions & Guidelines	Packaging Information	3D Models

DISCLAIMER

All product related data (e.g. specification, statements and general information) are subject to change without any notice. It is necessary that the customer observes all product related technical / application information and handling instructions.

CapXon products are designed and manufactured according to severe quality and safety standards. Under no circumstance, CapXon warrants that any CapXon product is suitable for the purposes intended for your application, even CapXon knows the application. It is customer's duty and obligation to check and make sure that CapXon products are suitable for the purposes intended and select the correct and proper CapXon product. Customers are requested to perform a sufficient validation and reliability evaluation to assure needed safety level and reliability performance by suitable designs and to apply proper safeguards (e.g. redundancies, protective circuits).

Particular operating conditions (ambient temperature, ripple current, voltage, thermal resistance, etc.) as well as storage, production or assembly may affect the performance and the lifetime of the capacitor. Please consult CapXon for lifetime estimation, failure mode considerations or worst-case scenarios according to the product technology, product tolerances / deviations or change of the characteristics of the capacitor due to shipment, storage, handling, production and usage.

For aerospace or military application, life-saving, life-sustaining, safety critical applications or any application where failure may cause severe personal injury or death, please consult us before design-in the capacitor in your application.

Except for the written expressed warranties, CapXon does not impliedly, by assumption or whatever else, warrant, undertake, promise any other warranty or guaranty for any CapXon product.

For further information, please visit our website www.capxongroup.com or contact CapXon directly.