

# AM SERIES • HIGH TEMPERATURE TYPE 150°C

# **KEY FEATURES**



- HYBRID CONDUCTIVE POLYMER THT type
- Endurance: 150°C 1000 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 ~ +150°C  |                                       |  |  |
| Rated Voltage Range                                | V <sub>R</sub>    | 16 ~ 80V DC   |                                       |  |  |
| Surge Voltage                                      | Vs                | $(V_R \le 100V)$ : $V_S = 1.25 \cdot V_R$                             |                                       |  |  |
| Capacitance Range                                  | C <sub>R</sub>    | 8.2 ~ 560μF   |                                       |  |  |
| Cap. Tolerance                                     | ΔC                | ±20% (120Hz = 20°C)   |                                       |  |  |
| Leakage Current<br>(20°C • V <sub>R</sub> applied) | I <sub>LEAK</sub> | Not to exceed the values shown in standard ratings<br>After 2 minutes |                                       |  |  |
| Dissipation Factor %<br>(20°C • 120Hz)             | tanδ              | Not to exceed the values shown in standard ratings                    |                                       |  |  |
| Equivalent Series<br>Resistance<br>(20°C • 100kHz) | ESR               | Not to exceed the values shown in standard ratings                    |                                       |  |  |
| Lifetime Test                                      |                   |   |                                       |  |  |
|  |                   | Test  | Test 1000 hours                       |  |  |
| Endurance  |                   | $\triangle C/C_R$ Within ±30% of the initial value                    |                                       |  |  |
| 150°C  |                   | tanδ  | Less than 200% of the specified value |  |  |

Less than 200% of the specified value

Less than the specified value

#### DIMENSIONS • All dimensions in mm

(V<sub>R</sub> & I<sub>R</sub> applied)



| øD | L    | ØD±0.5 | а   | F±0.5 | Ød±0.05 |
|----|------|--------|-----|-------|---------|
| 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     |

# MULTIPLIER K<sub>f</sub> for RIPPLE CURRENT vs. FREQUENCY

ESR

 $I_{Leak}$ 

| Frequency (Hz)             | 120 ≤ Freq. < 1k | 1k ≤ Freq. < 10k | 10k ≤ Freq. < 100k | 100k ≤ Freq. < 300k |
|----------------------------|------------------|------------------|--------------------|---------------------|
| Coefficient K <sub>f</sub> | 0.1              | 0.3              | 0.6                | 1                   |



#### **STANDARD RATINGS**

| V <sub>R</sub><br>(V) | С <sub>к</sub><br>(µF) | ø D<br>(mm) | L<br>(mm) | l <sub>LEAK</sub><br>(μΑ, 2min) | tanδ<br>+20°C ▪<br>120Hz<br>(%) | Max. ESR<br>+20°C ▪<br>100kHz<br>(mΩ) | I <sub>R</sub> • Max.<br>Ripple Current<br>+150°C • 100kHz<br>(mA rms) | CapXon Part Number |
|-----------------------|------------------------|-------------|-----------|---------------------------------|---------------------------------|---------------------------------------|--|--------------------|
|                       | 270                    | 8           | 9         | 43.2                            | 16                              | 25                                    | 770  | AM271M016F090PTD 🗌 |
| 16                    | 330                    | 8           | 11.5      | 52.8                            | 16                              | 23                                    | 800  | AM331M016F115PTD   |
| TO                    | 470                    | 10          | 10        | 75.2                            | 16                              | 20                                    | 880  | AM471M016G100PTA 🗌 |
|                       | 560                    | 10          | 12.5      | 89.6                            | 16                              | 16                                    | 1010   | AM561M016G125PTA 🗌 |
|                       | 150                    | 8           | 9         | 37.5                            | 16                              | 27                                    | 750  | AM151M025F090PTD   |
| 25                    | 220                    | 8           | 11.5      | 55.0                            | 16                              | 25                                    | 770  | AM221M025F115PTD   |
| 25                    | 270                    | 10          | 10        | 67.5                            | 16                              | 22                                    | 850  | AM271M025G100PTA   |
|                       | 330                    | 10          | 12.5      | 82.5                            | 16                              | 16                                    | 970  | AM331M025G125PTA 🗌 |
|                       | 100                    | 8           | 9         | 16.5                            | 16                              | 30                                    | 710  | AM101M035F090PTD   |
| 35                    | 150                    | 8           | 11.5      | 35.0                            | 16                              | 27                                    | 730  | AM151M035F115PTD   |
| 55                    | 150                    | 10          | 10        | 52.5                            | 16                              | 23                                    | 830  | AM151M035G100PTA 🗌 |
|                       | 220                    | 10          | 12.5      | 77.0                            | 16                              | 18                                    | 950  | AM221M035G125PTA 🗌 |
|                       | 56                     | 8           | 9         | 22.4                            | 16                              | 30                                    | 650  | AM560M040F090PTD   |
|                       | 82                     | 8           | 11.5      | 32.8                            | 16                              | 27                                    | 660  | AM820M040F115PTD   |
| 40                    | 100                    | 10          | 10        | 40.0                            | 16                              | 25                                    | 720  | AM101M040G100PTA 🗌 |
|                       | 120                    | 10          | 10        | 48.0                            | 16                              | 23                                    | 740  | AM121M040G100PTA 🗌 |
|                       | 180                    | 10          | 12.5      | 48.0                            | 16                              | 20                                    | 850  | AM181M040G125PTA 🗌 |
|                       | 33                     | 8           | 9         | 16.5                            | 16                              | 35                                    | 550  | AM330M050F090PTD   |
| 50                    | 47                     | 8           | 11.5      | 23.5                            | 16                              | 28                                    | 620  | AM470M050F115PTD   |
| 50                    | 56                     | 10          | 10        | 28.0                            | 16                              | 28                                    | 660  | AM560M050G100PTA 🗌 |
|                       | 82                     | 10          | 12.5      | 41.0                            | 16                              | 25                                    | 720  | AM820M050G125PTA 🗌 |
|                       | 22                     | 8           | 9         | 13.9                            | 16                              | 40                                    | 520  | AM220M063F090PTD   |
| 63                    | 27                     | 8           | 11.5      | 17.0                            | 16                              | 35                                    | 540  | AM270M063F115PTD   |
|                       | 33                     | 10          | 10        | 20.8                            | 16                              | 30                                    | 570  | AM330M063G100PTA 🗌 |
|                       | 47                     | 10          | 10        | 29.6                            | 16                              | 30                                    | 570  | AM470M063G100PTA 🗌 |
|                       | 56                     | 10          | 12.5      | 35.3                            | 16                              | 25                                    | 620  | AM560M063G125PTA 🗌 |
|                       | 8.2                    | 8           | 9         | 6.6                             | 16                              | 90                                    | 320  | AM8R2M080F090PTD   |
|                       | 12                     | 10          | 10        | 9.6                             | 16                              | 70                                    | 440  | AM120M080G100PTA 🗌 |
| 80                    | 15                     | 8           | 11.5      | 12.0                            | 16                              | 70                                    | 410  | AM150M080F115PTD   |
|                       | 15                     | 10          | 10        | 12.0                            | 16                              | 70                                    | 440  | AM150M080G100PTA 🗌 |
|                       | 18                     | 10          | 12.5      | 14.4                            | 16                              | 50                                    | 480  | AM180M080G125PTA 🗌 |

: 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.

# PRECAUTIONS, GUIDELINES AND PACKAGING INFORMATON

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.





#### DISCLAIMER

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