

Total Circuit Protection Solution for LED Lighting

Small Footprint, Low-Profile Surface Mount Overvoltage and Overcurrent Protection



AEM Components' MF series of high-performance, wire-in-air fuses combined with the HSP series of high surge protection devices provide a complete surface-mount circuit protection solution for LED lighting applications. These low-profile, compact devices offer the highest level of protection in the smallest package sizes. Together they provide the assurance of reliable, long-term performance under high surge and high temperature operating conditions while meeting stringent international safety specifications.

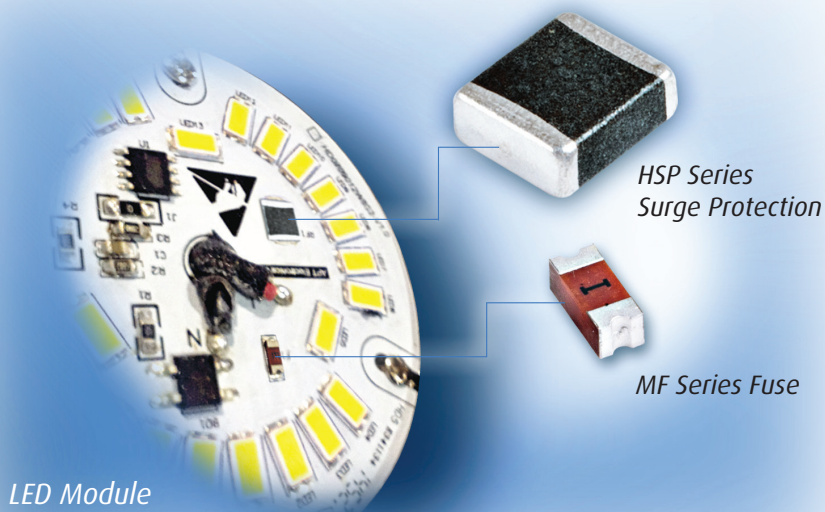
MF Series Fuses

- Compact footprint
- High inrush withstand
- 125V and 250V ratings
- Meets voltage surge requirements of Energy Star and IEC61000-4-5
- Lead-free and RoHS

HSP Series Surge Protection

- Compact footprint
- High voltage withstand
- High surge current withstand
- Meets voltage surge requirements of Energy Star and IEC61000-4-5
- Lead-free and RoHS

High-Performance Surface Mount Circuit Protection for LED Applications



Compact, low-profile surface mount circuit protection devices provide the ideal solution in LED luminaire circuits that demand a combination of size and performance over extreme operating temperatures. AEM surface-mount fuses and surge protection devices fit this application perfectly.

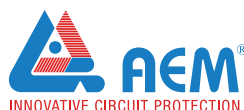
LED LIGHTING CIRCUIT PROTECTION DESIGN GUIDE

Input Voltage	Region	Voltage Surge Requirement		AEM Recommendation	
				Overcurrent	Overvoltage
Line Voltage (100-250 VAC)	North America	EPA Energy Star Program Requirements for Integral LED Lamps (Version 1.4) per IEEE C.62.41.2-2002 Category A - 2.5kV ring wave		MF1210 Series MF2410 Series ($\geq 1A$)	HSP1210 Series
	Europe Asia Australia	IEC 61547 Equipment for General Lighting Purposes per IEC 61000-4-5	<25W Light Bulb - 500V / 250A	MF2410 Series ($\geq 1A$)	HSP1812 Series HSP2220 Series
			>25W Light Bulb - 1kV / 500A	MF2410 Series (2A)	HSP2220 Series

	MF1210	MF2410
Footprint	1210	2410
Voltage Rating (VAC)	125	250
Current Rating (A)	1.0 to 3.0	0.5 to 2.0
Interrupting Rating	100A @ 125 VAC 100A @ 65 VDC	100A @ 250 VAC 50A @ 125 VDC
I^2t (A ² s)	0.2 to 1.5	0.11 to 3.00

	HSP1210	HSP1812	HSP2220
Footprint	1210	1812	2220
Working Voltage (VAC)	250	300	250 - 300
Surge Current (A) 8/20 μ s	200	500	500 - 800
Energy (J)	7.2	23.0	19.8 - 38.0

For more information and complete design information, visit:
www.aemcomponents.com/applications/solutions



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