

HIGH ENERGY

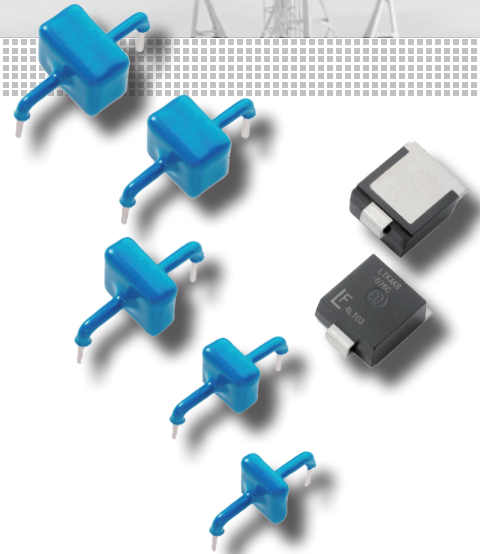
POWER LINE SURGE PROTECTION



Improve System Reliability and Lower Maintenance Costs

Littelfuse AK/ LTKAK Series high energy TVS Diodes offer superior clamping performance over standard Silicon Avalanche Diode (SAD) Technologies. LTKAK series also offer the highest power rating (8x20 μ s waveform) among surface mount TVS available in the current market.

The High Power AK Families TVS Diodes offer a better solution than conventional overvoltage protection methods, while the latest surface mounted version LTKAK series offer a low profile, reflow solderable option for compact space requirement.



Applications

- Cell Phone Base Stations
- Industrial Transient Voltage Surge Suppressors (TVSSs)
- Defense and Avionics
- Power Grid and Distribution Systems
- AC/ DC Power Line Circuit Protection

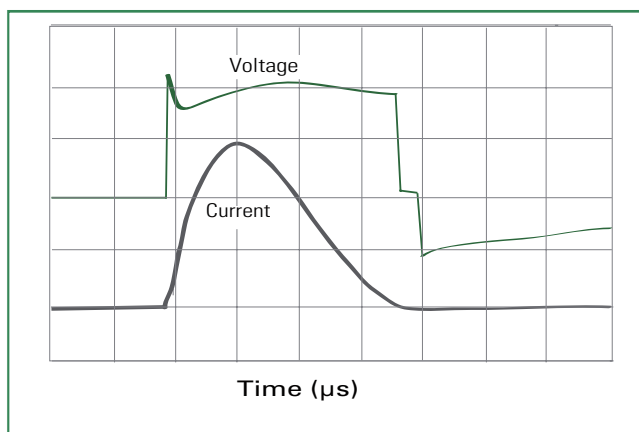
Compare to Conventional Technology, AK/ LTKAK Series Offer



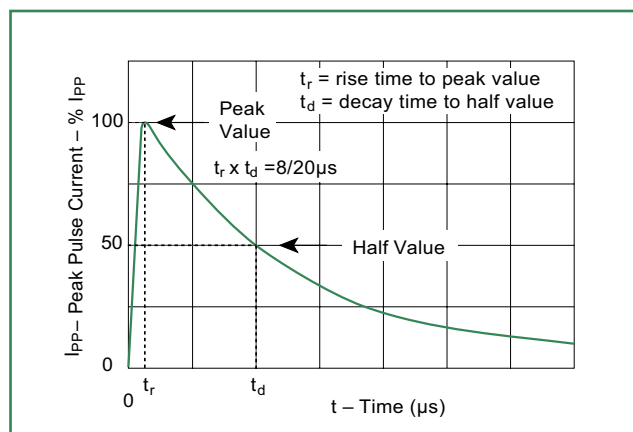
- Precise clamping voltage
- No wear-out mechanism
- Lower leakage
- Faster response
- Compact design
- Truly surface mountable package option for LTKAK series
- Improved lead inductance for LTKAK series
- Improved heat sink capability for LTKAK series
- Total power consumption saving and asy design by using AK/LTKAK series that eliminate inductor design

Series Name	Package Type	Polarity	Reverse Standoff Voltage (V_R)	Peak Pulse Current (I_{PP} 8x20 μ s)	Halogen-Free	RoHS Compliant
AK1	Radial Lead	Bidirectional	76	1kA	•	•
AK3	Radial Lead	Bidirectional	15-430	3kA	•	•
AK6	Radial Lead	Bidirectional	30-430	6kA	•	•
AK10	Radial Lead	Bidirectional	15-530	10kA	•	•
AK15	Radial Lead	Bidirectional	58-76	15kA	•	•
LTKAK6	Surface Mount	Bidirectional	58-76	6kA	•	•
LTKAK10	Surface Mount	Bidirectional	58-76	10kA	•	•

Surge Response (8/20 Surge current waveform)



8/20 Pulse Waveform



The power dissipation causes a change in avalanche voltage during the surge and the avalanche voltage eventually returns to the original value when the transient has passed.