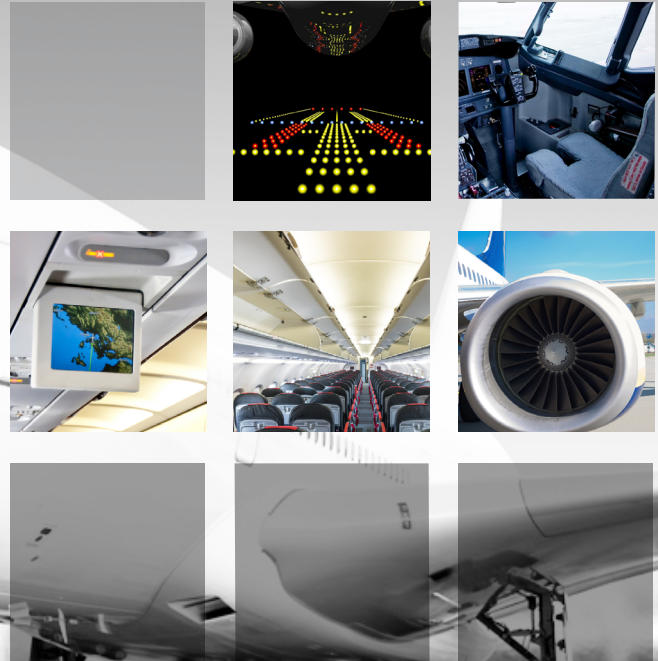


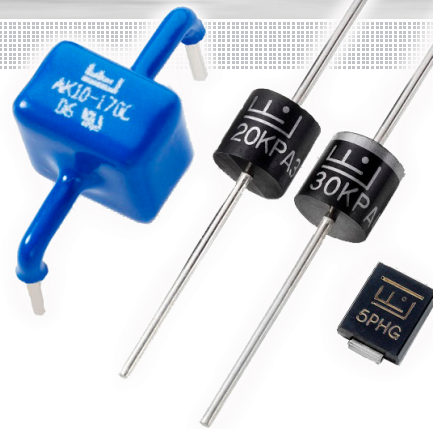
Customized To Your Unique Performance Needs



Upscreening, Sorting, Customized Solution and Ready-to-order Hi-REL TVS Diodes

Littelfuse, global leader in circuit protection products, offers a wide portfolio of discrete TVS Diode devices ranging from 200 watt to 30kW including ultra high power AK families up to 15kA.

Our dedicated design team with AS9100 certified facility provides specialized upscreening services based upon Specification MIL-PRF-19500 for robust Hi-Rel TVS Diodes that are suitable selection for applications require higher reliability performance under harsh conditions.



Customized Manufacturing Sorting Steps Available

- Visual Monitor in Process
- Single Wafer Lot Source
- High Temperature Storage Life
- X-Ray Inspection
- Reflow (2X)
- Temperature Cycle Test
- 3 Sigma & Dynamic Test
- Customized Vbr/Ir
- Additional Sorting
- HTRB
- H3TRB
- Labeling

Upscreening, Sorting , Customized Hi-Rel TVS Diode Solution

Features



- Military screening processes flow
- Flexible selection on high reliability sortings flow and it can be customized by requests
- Standard voltage range and power rating is offered energy absorption capability
- Long history of use in the aerospace industry

Benefits

- Ensures high-reliability performance to meet the requirements of aerospace, military, industrial, and medical and applications
- Provides the flexibility to address a variety of applications
- Allows for easy design-in in compliance with the RTCA/DO-160 Standard (Environmental Conditions and Test Procedures for Airborne Equipment)
- Ensures market-proven results

Customized

To Your Unique
Performance Needs







**AS9100
ISO09001
TS16949
AEC-Q101**





Available Upscreened Hi-Rel TVS Series To Order

Series	100% Screen Test Sorting	Group B Test Sorting	Peakpulse Power Rating	Reverse Stand Off Voltage (V _R)	Minimum Breakdown Voltage (V _{BR})	SMD/ AXIAL	Package
	SMBJ-HR	YES	YES	600W	5.0V-170V	6.4V-189V	SMD DO-214AA
	SMBJ-HRA	YES		600W	5.0V-170V	6.4V-189V	SMD DO-214AA
	SMCG-HR	YES	YES	1500W	10V-120V	11V-133V	SMD DO-215AB
	SMCG-HRA	YES		1500W	10V-120V	11V-133V	SMD DO-215AB
	SMCJ-HR	YES	YES	1500W	5.0V-170V	6.4V-189V	SMD DO-214AB
	SMCJ-HRA	YES		1500W	5.0V-170V	6.4V-189V	SMD DO-214AB
	SMDJ-HR	YES	YES	3000W	5.0V-170V	6.4V-189V	SMD DO-214AB
	SMDJ-HRA	YES		3000W	5.0V-170V	6.4V-189V	SMD DO-214AB

100% Screen Process

100% Vision Inspection	MIL-STD-750: Method 2074
100% High Temperature Storage Life (168hrs,150°C)	MIL-STD-750: Method 1031
100% X-RAY inspection	MIL-STD-750: Method 2076
100% Temperature Cycle Test (-55 to150°C, 20 cycles, dwell time 15 min)	MIL-STD-750: Method 1051
100% Reflow (2X)	JEDEC J-STD-020
100% Surge Test (2x)	MIL-STD-750: Method 4066
100% HTRB 150°C Bias=VR(80% breakdown voltage, 96hrs, and eachdirection at 96 hrs for Bi-directional products)	MIL-STD-750: Method 1038
Final Electrical Test(100% 3 sigma limit, 100% dynamic test and PAT limit)	MIL-STD-750: Method 4016.4021.4011

Group B Test

Screen	Method	Condition	Requirement
Surge Test	10x1000µS Peak Pulse Waveform	Maximum Clamping Voltage (V _C) @Peak Pulse Current (I _{PP})	Sample Size 45, Perform 10x Accept 0 Failures
Burn-In (HTRB)	MIL-STD-750: Method 1038.5	Applied Voltage 100% V _R @150°C	Sample Size 45, 340 Hours (680 hours for bi-directional products, each direction 340 hours). Accept 0 Failures
Electrical Tests		I _R @V _R V _(BR) @I _T	Sample Size 45, Accept 0 Failures