

TVS Diodes for Power Lines

SMC is launching a whole new line of TVS Diodes especially for the Avionic Market. For this Product line, Customers will get the following features :

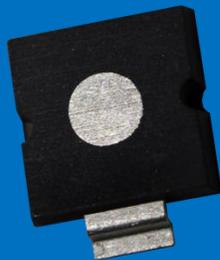
- ❖ CoC
- ❖ 100% Testing
- ❖ Full Traceability back to the Wafer lot
SMC own Die (no third party die)
- ❖ Qual Data for each Product Family
- ❖ Up screening if required

SMC is TS16949 qualified and was audited and approved by Airbus / Thales / EADS. SMC can also offer very competitive commercial pricing.

Diode Types (inkl. PLAD alternative Parts):

- ❖ 15kW SMD (Uni- / Bi-Directional)
- ❖ 15kW Axial (Uni- / Bi-Directional)
- ❖ 30kW SMD (Uni-Directional)
- ❖ 30kW Axial (Uni- / Bi-Directional)
- ❖ 50kW Axial (Uni- / Bi-Directional)
- ❖ 5kW SMD.. Gullwing and J-Lead

Pictures of the SMC TPK Parts with the same footprint as the Microsemi PLAD Parts:



For more information for this or any other Product on this Newsletter, please contact Protec GmbH

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Low Capacitance TVS Products from SMC for High Speed Datalines

For high speed data transmission circuits, low capacitance is desired and can be achieved by placing two diodes in series stack. The total value of capacitors in series will be less than the smallest component. Multiple signal line interface overvoltage protection, such as USB, RS232, CAN and Ethernet etc.

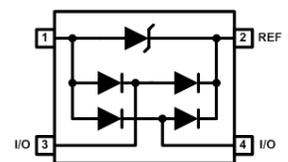
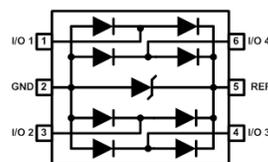
The Low Capacitance TVS Parts are available as 300W and 500W TVS Arrays.

ELECTRICAL CHARACTERISTICS @ 25 °C

Part Number	Stand-off Voltage	Breakdown Voltage	Clamping Voltage	Leakage Current	Capacitance	Temperature Coefficient of V_{BR}
	V_{WM} (v) Max	V_{BR} @1mA (V) Min	V_c @ 1 A (V) Max	I_R @ V_{WM} (µA) Max	(f = 1MHz) C @ 0V (pF) Max	
LCDA03	3.3	4	7	200	5	-5
LCDA05	5.0	6	9.8	20	5	1
LCDA12	12.0	13.3	19	1	5	8
LCDA15	15.0	16.7	24	1	5	11
LCDA24	24.0	26.7	43	1	5	28

ELECTRICAL CHARACTERISTICS @ 25 °C

Part Number	Stand-off Voltage	Breakdown Voltage	Clamping Voltage	Leakage Current	Capacitance	Temperature Coefficient of V_{BR}
	V_{WM} (v) Max	V_{BR} @1mA (V) Min	V_c @ 1 A (V) Max	I_R @ V_{WM} (µA) Max	(f = 1MHz) C @ 0V (pF) Max	
S16LC03-8	3.3	4	7	200	25	-5
S16LC05-8	5.0	6	9.8	20	25	1
S16LC12-8	12.0	13.3	19	1	25	8
S16LC15-8	15.0	16.7	24	1	25	11
S16LC24-8	24.0	26.7	43	1	25	28



TVS Screening Options

SMC offers screening options especially for the Avionic and Military Market to prevent "infant mortality" of TVS Devices. For more information on the screening options please contact Protec GmbH.

SMC Pricing and full controll of the Process

SMC has their own Waver FAB and all their Products are under full control of SMC. Sangdest Microelectronics (Nanjing) Co. Ltd does also offer full traceability. All data needed by the Avionic Industry like Reliability Summary's with MTBF and FIT Rates. SMC also can offer very competitive Pricing in comparison to all other Diode Manufacturers.