



QUAD BI-DIRECTIONAL TVS/ZENER FOR ESD PROTECTION

This Quad TVS/Zener Array has been designed to Protect Sensitive Equipment against ESD and to prevent Latch-Up events in CMOS circuitry operating at 5Vdc and below. This TVS array offers an integrated solution to protect up to 4 data lines where the board space is a premium.

SPECIFICATION FEATURES

- 150W Power Dissipation (8/20µs Waveform)
- Low Leakage Current, Maximum of 1µA @ 5Vdc
- Very low Clamping voltage (Max of 10V @ 14A 8/20µs)
- IEC61000-4-2 ESD 15kV air, 8kV Contact Compliance
- Industry standard SOT23-6L
- 100% Tin Matte Finish (RoHS Compliant)

APPLICATIONS

- Personal Digital Assistant (PDA)
- SIM Card Port Protection (Mobile Phone)
- Portable Instrumentation
- Mobile Phones and Accessories
- Computer Data Ports

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20µs Waveform)	P_{pp}	150	W
Peak Pulse Current (8/20µs Waveform)	I_{pp}	14	A
ESD Voltage (HBM)	V_{ESD}	>25	kV
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS $T_j = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				5	v
Reverse Breakdown Voltage	V_{BR}	$I_{BR} = 1 \text{ mA}$	6.2		7.2	V
Reverse Leakage Current	I_R	$V_R = 5 \text{ V}$			1	µA
Clamping Voltage (8/20µs)	V_c	$I_{pp} = 5 \text{ Amps}$			9	V
Clamping Voltage (8/20µs)	V_c	$I_{pp} = 10 \text{ Amps}$			11	V
Off State Junction Capacitance	C_j	0 Vdc Bias f = 1MHz Between I/O pins and pin 7			90	pF
Off State Junction Capacitance	C_j	5 Vdc Bias f = 1MHz Between I/O pins and pin 7			50	pF

