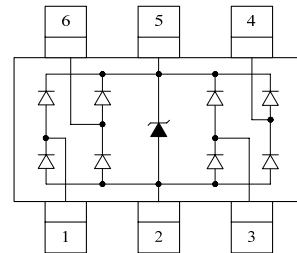


DESCRIPTION

AZC099-04S a low capacitance of 0.4pF maximum and operates with virtually no insertion loss to 1GHz. This makes the device ideal for protection of high-speed data lines such as USB 2.0, Firewire, DVI, and gigabit Ethernet interfaces. The low capacitance array configuration allows the user to protect four high-speed data or transmission lines. The low inductance construction minimizes voltage overshoot during high current surges. They may be used to meet the ESD immunity requirements of IEC61000-4-2, Level 4 ($\pm 15kV$ air, $\pm 8kV$ contact discharge).

This device has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and lightning.



FEATURES

- Protects four I/O lines and one Vcc line
- Low capacitance
- Working voltages : 5V
- Low leakage current
- Low capacitance for high-speed interfaces
- No insertion loss to 2.0GHz
- Response Time is < 1 ns

APPLICATIONS

- Digital Visual Interface (DVI)
- USB 1.1/2.0/OTG
- IEEE 1394 Firewire Ports
- Notebooks & Handhelds
- Projection TV & Monitors
- Set-top box
- Flat Panel Displays
- PCI Express

ABSOLUTE MAXIMUM RATING

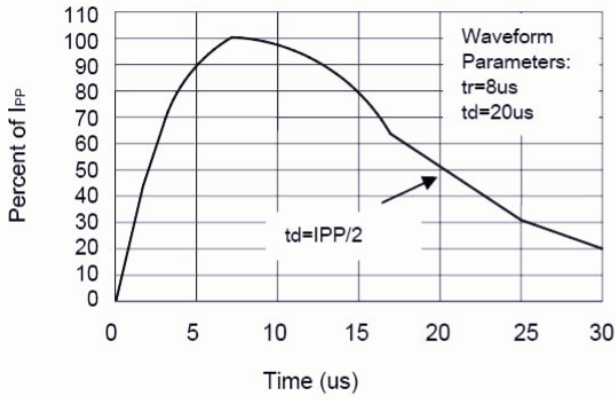
Symbol	Parameter	Value	Units
P _{PK}	Peak Pulse Power (8/20μs)	150	W
I _{PP}	Peak Pulse Current (8/20μs)	5	A
V _{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±15 ±8	kV
T _{OPT}	Operating Temperature	-55/+150	°C
T _{STG}	Storage Temperature	-55/+150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

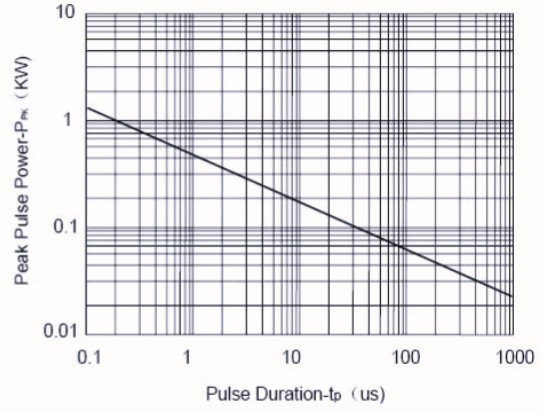
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage	Any I/O pin to GND			5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA Any I/O pin to GND	6.0			V
I _R	Reverse Leakage Current	V _{RWM} = 5V Any I/O pin to GND			1	μA
V _F	Diode Forward Voltage	I _F = 15mA			1.2	V
V _{C1}	Clamping Voltage 1	I _{PP} = 1A, t _p = 8/20μs Any I/O pin to GND			15	V
V _{C2}	Clamping Voltage 2	I _{PP} = 5A, t _p = 8/20μs Any I/O pin to GND			28	V
C _{J1}	Junction Capacitance 1	V _R = 0V, f = 1MHz Between I/O pins			0.4	pF
C _{J2}	Junction Capacitance 2	V _R = 0V, f = 1MHz Any I/O pin to GND			0.8	pF

Note: I/O pins are pin 1,3,4,6.

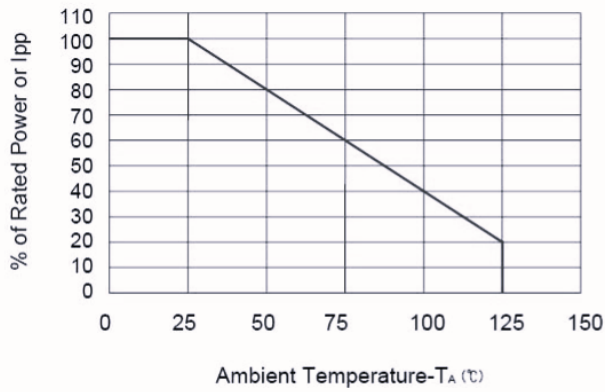
ELECTRICAL CHARACTERISTICS CURVE



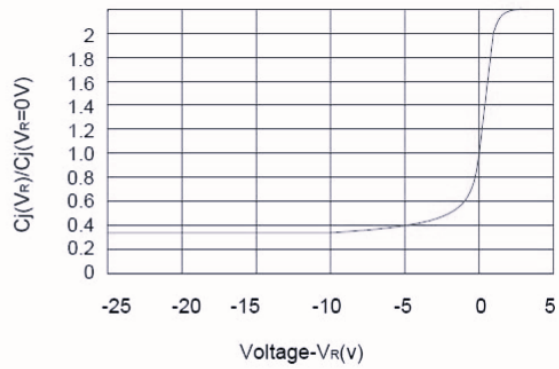
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



Junction Capacitance vs. Reverse Voltage

SOT23-6

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW AZC099-04S	SOT23-6	3000	Tape and reel

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