

Low Capacitance Diode Array

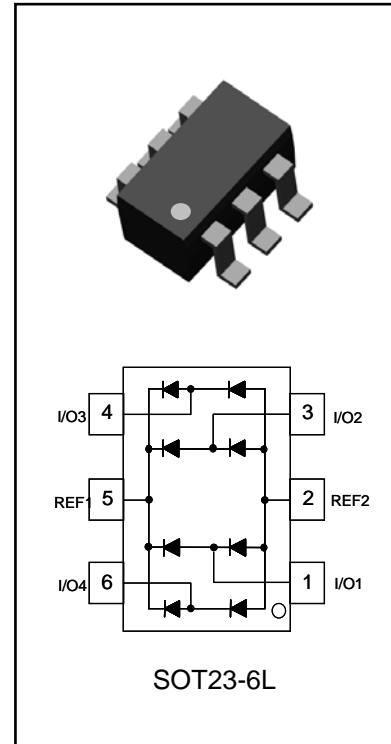
This diode array is configured to protect up to four data transmission lines acting as a line terminator, minimizing overshoot and undershoot conditions due to bus impedance as well as protect against over-voltage events as electrostatic discharges.

SPECIFICATION FEATURES

- Maximum Capacitance of 3.0pF at 0Vdc 1MHz Line-to-Ground
- Peak Inverse voltage of 40V per diode
- Maximum Leakage Current of 1.0 μ A @ VR
- Industry Standard SMT Package SOT23-6L
- IEC61000-4-2, IEC61000-4-4 and IEC61000-4-5 Full Compliance
- 100% Tin Matte finish (LEAD-FREE PRODUCT)

APPLICATIONS

- USB 2.0 and Firewire Port Protection
- LAN/WLAN Access Point terminals
- Video Signal line protection



MAXIMUM RATINGS $T_j = 25^\circ\text{C}$ Unless otherwise noted

Rating	Symbol	Value	Units
Repetitive Peak Inverse Voltage	V_{RRM}	40	V
Continuous Reverse Voltage	V_R	40	V
Peak Pulse Current (8/20 μ s Waveform)	I_{PP}	24	A
Average Rectified Forward Current, Per Diode	$I_{F(AV)}$	50	mA
Power Dissipation, $T_j = 85^\circ\text{C}$, $I_F = 200\text{mA}$, Per Diode	P_D	100	mW
Operating Junction Temperature Range	T_j	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$
Soldering Temperature, t max = 10 s	T_L	260	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS Tj = 25°C unless otherwise noted

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Parameter	Symbol	Conditions	Min	Typ	Max	Units
Repetitive Peak Inverse Voltage	V_{RRM}				40	V
Breakdown Voltage	V_{BR}	$I_{BR} = 10\mu A$	50			V
Forward Voltage (8/20µs Pulse)	V_F	$I_{PP} = 1A$			2.0	V
		$I_{PP} = 10A$			5.0	V
Reverse Leakage Current	I_R	$V_R = 40V$			1.0	µA
Off-State Junction Capacitance	C_J	0Vdc Bias, f =1 MHz Between I/O pins and REF2 (Ground)			3.0	pF
		0Vdc Bias, f =1 MHz Between I/O pins		2.0		pF



PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT

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