

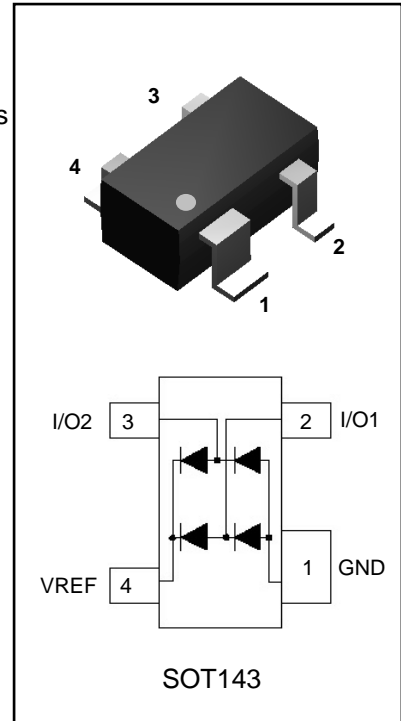
**DRAFT SPEC**

## Low Capacitance Diode Array

This diode array is configured to protect up to two 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 5.0pF at 0Vdc 1MHz Line-to-Ground
- Maximum Leakage Current of 1μA @ VRWM
- Industry Standard SMT Package SOT143
- IEC61000-4-2 Full Compliance; 15kV Air, 8kV Contact
- 100% Tin Matte finish (LEAD-FREE PRODUCT)



### APPLICATIONS

- USB 2.0 and Firewire Port Protection
- LAN/WLAN Access Point terminals
- Video Signal line protection
- I<sup>2</sup>C Bus Protection



### MAXIMUM RATINGS T<sub>j</sub> = 25°C Unless otherwise noted

Rating	Symbol	Value	Units
Peak Pulse Current (8/20μs Waveform)	I <sub>PPM</sub>	24	A
Rectifier Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	70	V
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C
Soldering Temperature, t max = 10s	T <sub>L</sub>	260	°C

**ELECTRICAL CHARACTERISTICS**  $T_j = 25^\circ\text{C}$  unless otherwise noted

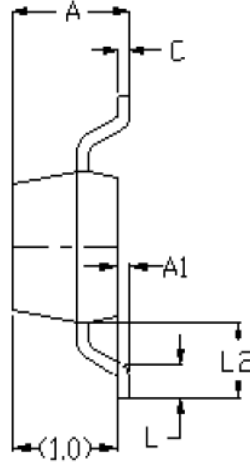
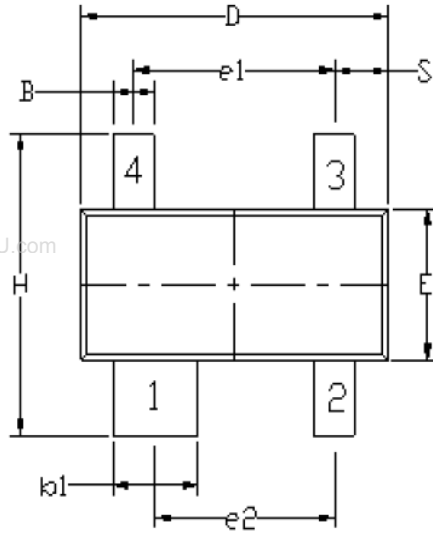
Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				70	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR} = 50\mu\text{A}$	85			V
Reverse Leakage Current	$I_R$	$V_R = 70\text{V}$			1	$\mu\text{A}$
Clamping Voltage (8/20 $\mu\text{s}$ )	$V_{FC}$	$I_{pp} = 1\text{A}$			1.5	V
Clamping Voltage (8/20 $\mu\text{s}$ )	$V_{FC}$	$I_{pp} = 10\text{A}$			3.3	V
Clamping Voltage (8/20 $\mu\text{s}$ )	$V_{FC}$	$I_{pp} = 24\text{A}$			7	V
Off State Junction Capacitance	$C_j$	0 Vdc Bias f = 1MHz Between I/O pins and GND			5	pF
		0 Vdc Bias f = 1MHz Between I/O pins			3	pF

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PACKAGE DIMENSIONS - SOT143

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SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.043	-	1.09
A1	0.001	0.003	0.025	0.09
B	0.015	0.018	0.370	0.455
k1	0.031	0.033	0.780	0.840
C	0.004	0.006	0.107	0.140
D	0.110	0.118	2.8	3.0
E	0.047	0.055	1.20	1.40
e1	0.071	0.079	1.80	2.00
e2	0.065	0.069	1.650	1.750
H	0.087	0.098	2.20	2.49
L	0.010	0.014	0.265	0.365
L2	0.024	0.027	0.60	0.68
S	0.018	0.022	0.450	0.550