



Low Capacitance TVS and 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. Additionally the TVS Device offers overvoltage transient protection between the operating voltage bus and ground plane.

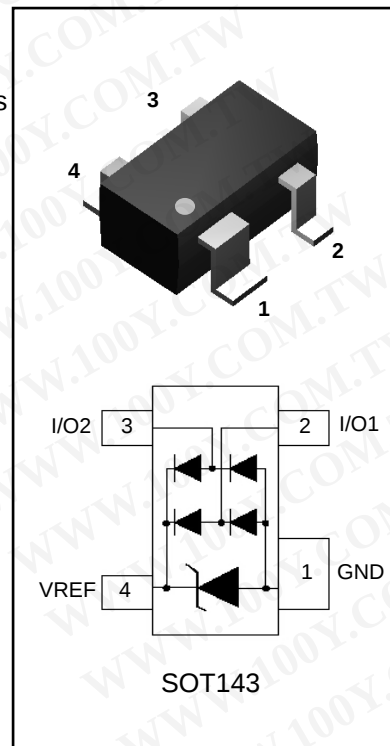
SPECIFICATION FEATURES

- Peak Power Dissipation of 350W 8/20 μ s
- Maximum Capacitance of 5.0pF at 0Vdc 1MHz Line-to-Ground
- Maximum Leakage Current of 1 μ A @ VRWM
- Industry Standard SMT Package SOT143
- IEC61000-4-2, IEC61000-4-4 and IEC61000-4-5 Full Compliance
- 100% Tin Matte finish (LEAD-FREE PRODUCT)

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

APPLICATIONS

- USB 2.0 and Firewire Port Protection
- LAN/WLAN Access Point terminals
- Video Signal line protection
- I²C Bus Protection



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

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 μ s Waveform)	P_{PPM}	350	W
Peak Pulse Current (8/20 μ s Waveform)	I_{PP}	17.5	A
Operating Junction Temperature Range	T_j	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$
Soldering Temperature, $t_{max} = 10s$	T_L	260	$^{\circ}\text{C}$

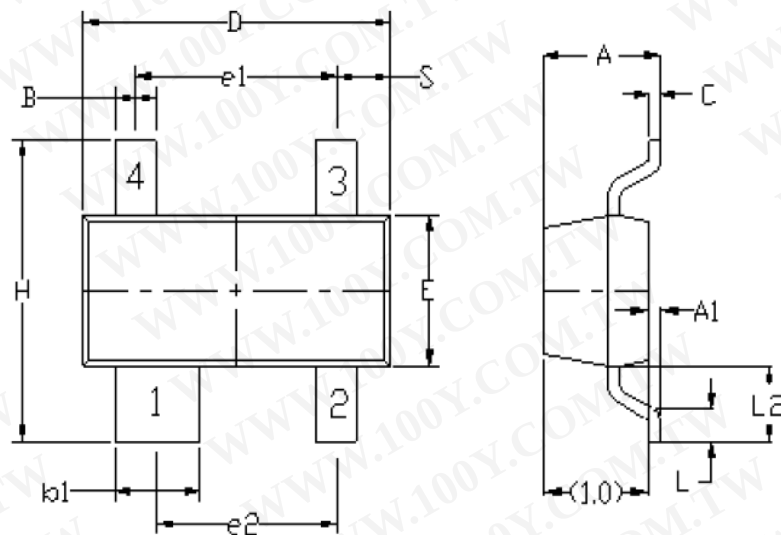
**ELECTRICAL CHARACTERISTICS** $T_j = 25^\circ\text{C}$ unless otherwise noted

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			V
Reverse Leakage Current	I_R	$V_R = 5\text{V}$			1	μA
Clamping Voltage (8/20 μs)	V_C	$I_{pp} = 1\text{A}$			9.5	V
Clamping Voltage (8/20 μs)	V_C	$I_{pp} = 10\text{A}$			12	V
Clamping Voltage (8/20 μs)	V_C	$I_{pp} = 17.5\text{A}$			20	V
Off State Junction Capacitance	C_j	0 Vdc Bias $f = 1\text{MHz}$ Between I/O pins and GND			5	pF
		0 Vdc Bias $f = 1\text{MHz}$ Between I/O pins			3	pF

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PACKAGE DIMENSIONS - SOT143



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

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