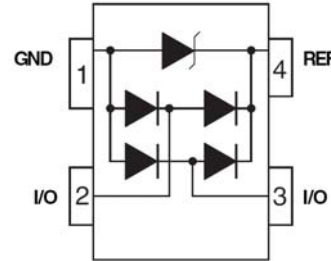


Feature

- 500 Watts Peak Power per Line ($t_p = 8/20\mu s$)
- ESD Protection > 25 kilovolts
- Low Clamping Voltage
- Unidirectional Configuration
- Protects 2 I/O Ports & Power Supply
- Low Capacitance: 10pF
- RoHS Compliant in Lead-Free Versions
- Molded JEDEC SOT-143
- Available in Lead-Free Pure-Tin Plating(Annealed)
- Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- 8mm Tape and Reel Per EIA Standard 481



Applications

- Ethernet - 10/100 Base T
- FireWire
- Wireless Communications
- USB Interface

Electrical characteristics per line@25°C(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse stand-off voltage	V_{RWM}				5	V
Reverse Breakdown voltage	V_{BR}	$I_t = 1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$ $T=25^\circ C$			5	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ $t_p = 8/20\mu S$			9.8	V
Clamping Voltage	V_C	$I_{PP}=28A$ $t_p = 8/20\mu S$			20.0	V
Junction Capacitance	C_j	$V_R=0V$ $f = 1MHz$		5		pF

Absolute maximum rating @25°C

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu S$)	P_{pp}	500	W
Peak Forward voltage@1A	V_F	1.5	V
Operating Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Typical Characteristics

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

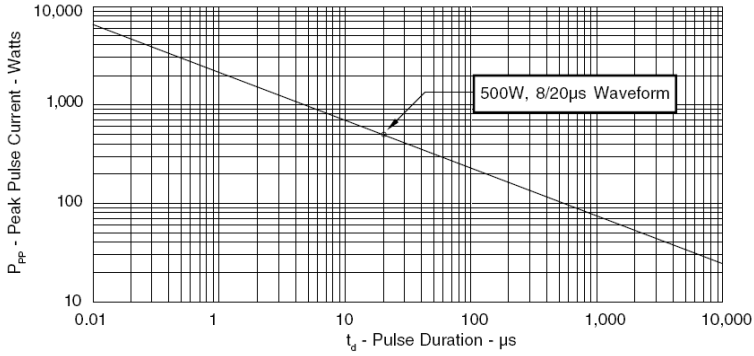


FIGURE 2
PULSE WAVE FORM

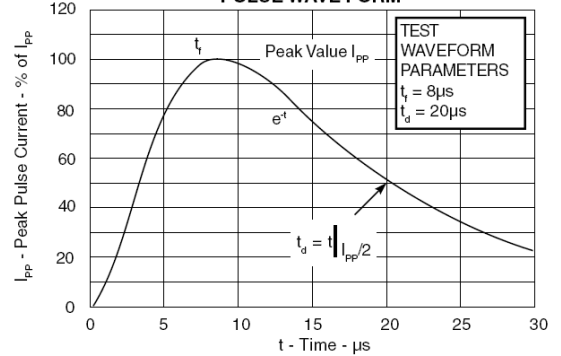


FIGURE 3
POWER DERATING CURVE

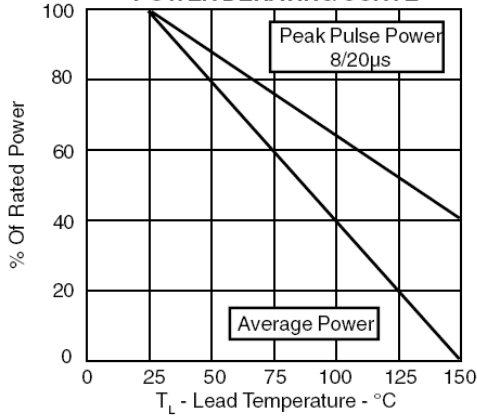
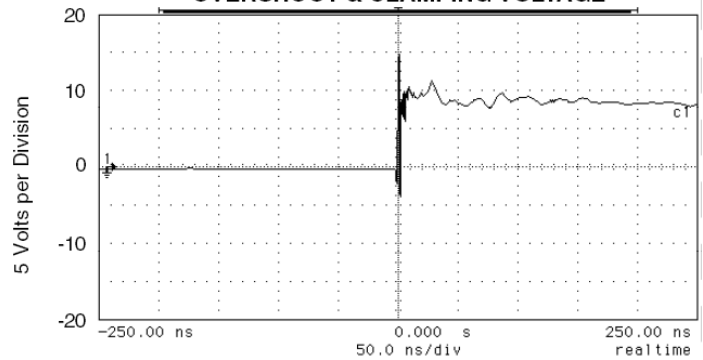


FIGURE 4
OVERSHOOT & CLAMPING VOLTAGE



ESD Test Pulse: 5 kilovolt, 1/30ns (waveform)

FIGURE 5
INPUT CAPACITANCE CIRCUIT

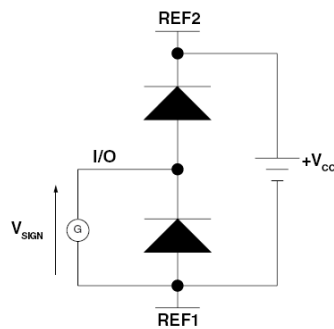
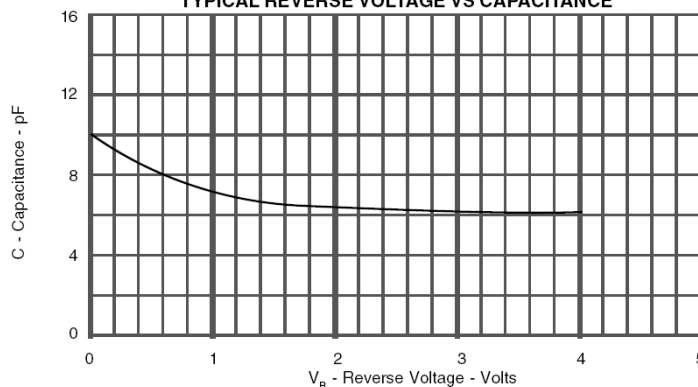
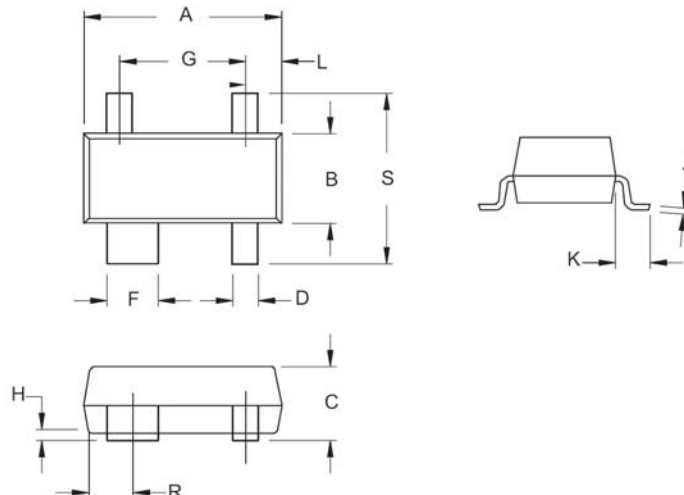

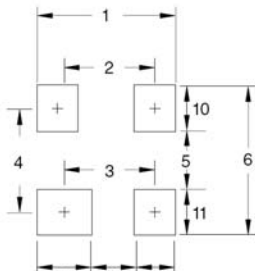


FIGURE 6
TYPICAL REVERSE VOLTAGE VS CAPACITANCE



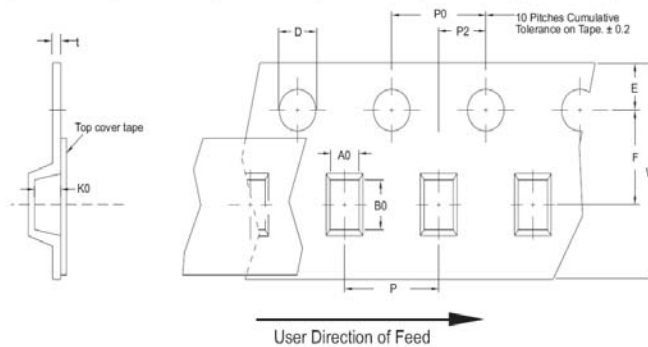
Product dimension and pad size

PACKAGE OUTLINE		SOT-143			
					
PACKAGE DIMENSIONS					
DIM	MILLIMETERS		INCHES		
	MIN	MAX	MIN	MAX	
A	2.80	3.04	0.110	0.120	
B	1.20	1.39	0.047	0.055	
C	0.84	1.14	0.033	0.045	
D	0.39	0.50	0.015	0.020	
F	0.79	0.93	0.031	0.037	
G	1.78	2.03	0.070	0.080	
H	0.013	0.10	0.0005	0.004	
J	0.08	0.15	0.003	0.006	
K	0.46	0.60	0.018	0.024	
L	0.445	0.60	0.0175	0.024	
R	0.72	0.83	0.028	0.033	
S	2.11	2.48	0.083	0.098	

MOUNTING PAD				NOTES 1. Dimensioning and tolerances per ANSI Y14.5M, 1985. 2. Controlling Dimension: Inches 3. Dimensions are exclusive of mold flash and metal burrs.
TYPICAL				
DIM	Millimeters	Inches		
1	2.85	0.112		
2	2.00	0.079		
3	1.80	0.071		
4	1.90	0.075		
5	1.05	0.041		
6	2.75	0.108		
7	1.20	0.047		
8	0.80	0.031		
9	0.85	0.033		
10	0.85	0.033		
11	0.85	0.033		

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	3.10 ± 0.10	2.70 ± 0.10	1.35 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25



Revision History

Revision	Date	Changes
1.0	2008-7-3	-