

Low Capacitance TVS Diode Array

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Features

Ultra low leakage: nA level

Operating voltage: 5V

Low clamping voltage

Complies with following standards:

- IEC 61000-4-2 (ESD) immunity test

Air discharge: ±30kV Contact discharge: ±30kV

- IEC61000-4-4 (EFT) 40A (5/50ns)

-IEC61000-4-5 (Lightning) 6A (8/20µs)

RoHS Compliant

Ordering Information

Part Number	Qty per Reel	Reel Size
SR05LC	3000	7"

Mechanical Characteristics

Package: SOT-143

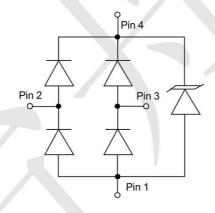
• Lead Finish: Matte Tin

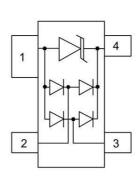
• UL Flammability Classification Rating 94V-0

Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Dimensions and Pin Configuration





Marking: WR1 Or R05



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Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit	
Peak Pulse Power (8/20µs)	Ppk	150	w	
Peak Pulse Current (8/20µs)	Ipp	6	А	
ESD per IEC 61000-4-2 (Air)	±30		LAZ	
ESD per IEC 61000-4-2 (Contact)	VESD	±30	kV	
Operating Temperature Range	TJ	-55 to +125	°C	
Storage Temperature Range	Tstg	-55 to +150	°C	

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage	VBR	6			V	IT = 1mA
Reverse Leakage Current	I _R			0.1	uA	VRWM =5V
Clamping Voltage	Vc			15	V	IPP = 1A (8 x 20µs pulse)
Clamping Voltage	Vc			25	V	IPP = 6A (8 x 20 □ s pulse)
Junction Capacitance	CJ		0.3	0.5	pF	VR = 0V, f = 1MHz



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Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

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Fig1. 8/20 µs Pulse Waveform

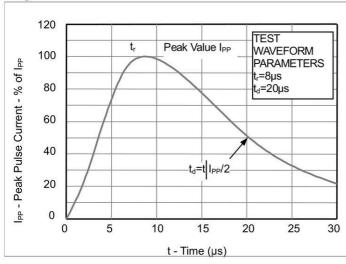


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

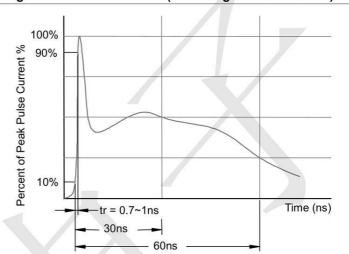
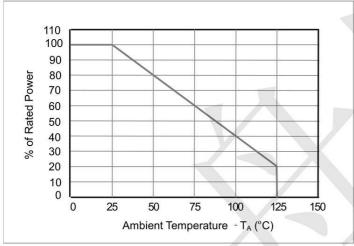


Fig3. Power Derating Curve

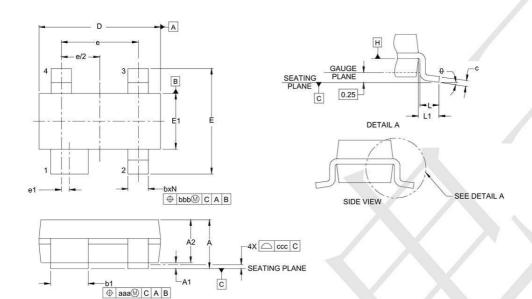




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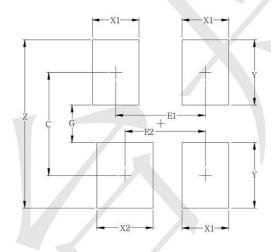
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Outline Drawing - SOT-143



		DIN	IENSI	ONS			
DIM	11	NCHE	S	MILL	IMET	TERS	
DIM	MIN	NOM	MAX	MIN	NOM	MAX	
Α	.031	-	.048	0.80	-	1.22	
A1	.000	-	.006	0.013		0.15	
A2	.029	.035	.042	0.75	0.90	1.07	
b	.011		.020	0.30	100	0.51	
b1	.029	1.70	.037	0.76	150	0.94	
C	.003	1882	.008	0.08	1.050	0.20	
D	.110	.114	.120	2.80	2.90	3.04	
E	.082	.093	.104	2.10	2.37	2.64	
E1	.047	.051	.055	1.20	1.30	1.40	
е		.075		1.92 BSC			
e1		.008		0.20 BSC			
L	.015	.020	.024	0.40	0.50	0.60	
L1	(.021)		(0.54)				
N	4		4				
-0	0°	-	8°	0°		8°	
aaa		.006			0.15		
bbb	.008			0.20			
ccc	004			0.10			

Land Pattern - SOT-143



0)/44	DIMENSIONS			
SYM	MILLIMETERS	INCHES		
С	2.20	0.087		
E1	1.92	0.076		
E2	1.72	0.068		
G	0.80	0.031		
X1	1.00	0.039		
X2	1.20	0.047		
Υ	1.40	0.055		
Z	3.60 0			