

Preliminary ESD50V12L

Low Capacitance TVS Diode Array

Features

- Transient protection for high speed data lines to
- IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 0.5kV, 12A (8/20 μs)
- Array of surge rated diodes with internal TVS Diode
- Protects two I/O lines
- Operating Voltage: 12 volts
- Low capacitance (5pF typical) for high-speed

interfaces Low clamping voltage Solid-state silicon-avalanche technology

- RoHS compliant package

Mechanical Data

- JEDEC SOT-143 package
- UL 497B listed Molding compound flammability rating: UL 94V-0
- Packaging : Tape and Reel per EIA 481 RoHS/WEEE

Compliant

Application

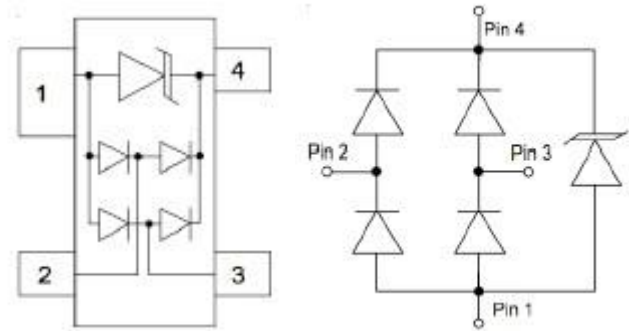
- ADSL
- Industrial electronics
- RS-422 interfaces
- Portable electronics
- Microcomputer input protection
- LAN/WAN equipment
- ADSL

Packing & Order Information

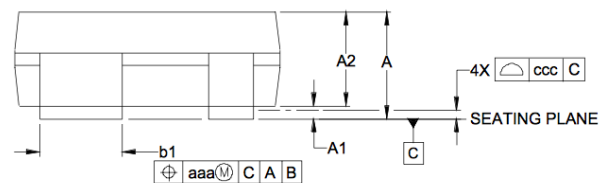
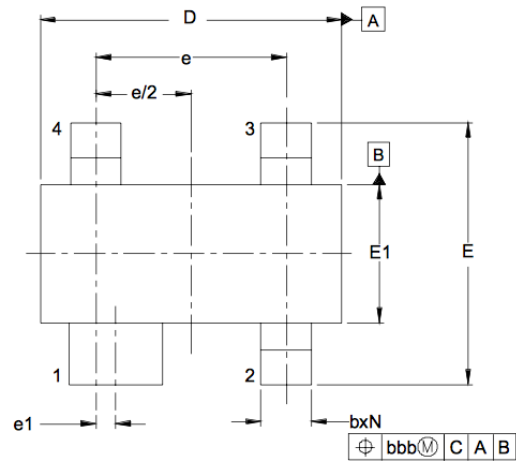
Shipping : 3,000/Reel



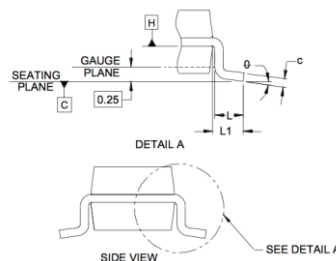
**RoHS
COMPLIANT**



SOT-143



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.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	-	0.51
b1	.029	-	.037	0.76	-	0.94
c	.003	-	.008	0.08	-	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
e	.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	-	-
θ	0°	-	8°	0°	-	8°
aaa	.006	-	-	0.15	-	-
bbb	.008	-	-	0.20	-	-
ccc	.004	-	-	0.10	-	-



Schematic & PIN Configuration

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
Ppk	Peak Pulse Power (tp = 8/20µs)	500	W
IPP	Peak Pulse Current (tp = 8/20µs)	16	A
VFP	Peak Forward Voltage (IF = 1A, tp=8/20µs)	1.5	v

Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
TJ	Lead Soldering Temperature	260 (10sec)	°C
TL	Operating Temperature	-55 to +125	°C
TSTG	Storage Temperature	-55 to +150	°C

Electrical Characteristics (Tc=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value		Unit
			Typical	Max	
Reverse Stand-Off Voltage		VRWM	13.5	12	V
Reverse Breakdown Voltage	It = 1Ma	VBP			V
Reverse Leakage Current	VRWM =12V, T=25°C	IR		1	µA
Clamping Voltage	IPP = 5A, tp = 8/20µs	VC		24	V
Clamping Voltage	IPP = 16A, tp = 8/20µs	VC	50	31	V
Junction Capacitance	Between I/O pins and Ground VR=0V,f=1MHz	Cj	5	10	pF
	Between I/O pins VR =0V,f=1MHz		3		pF

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