

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

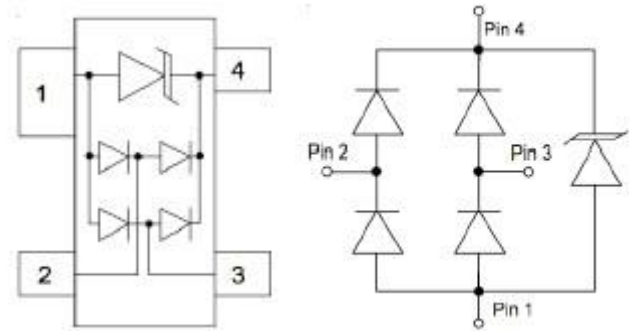
- ADSL
- Industrial electronics
- RS-422 interfaces
- Portable electronics
- Microcomputer input protection
- LAN/WAN equipment
- ADSL

Packing & Order Information

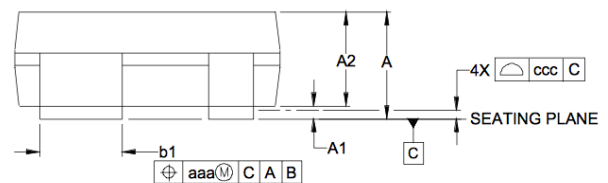
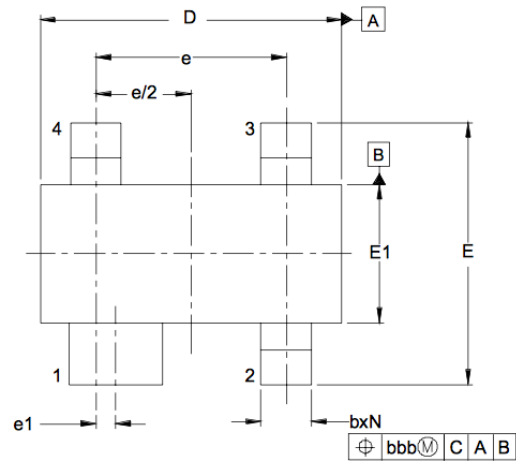
Shipping : 3,000/Reel



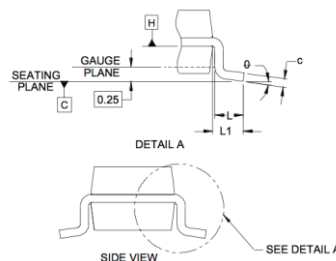
**RoHS
COMPLIANT**



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

Preliminary ESD50V12L

Low Capacitance TVS Diode Array

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

Preliminary ESD50V12L

Low Capacitance TVS Diode Array

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.