

Low Capacitance Quad Array for ESD Protection

General Description

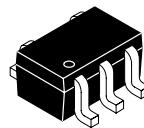
Low capacitance 4-fold ESD protection array in the very small SOT353 plastic package designed to protect up to five transmission or data lines from the damage caused by Electrostatic Discharge (ESD).

Applications

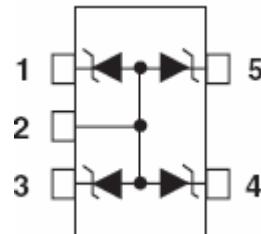
- Cellular handsets and accessories
- Portable electronics
- Computers and peripherals
- Communications systems
- Audio and video equipment.

Features

- Uni-directional ESD protection of up to five lines
- Bi-directional ESD protection of up to four lines
- Low diode capacitance
- Low clamping voltage
- low leakage current
- IEC 61000-4-2; level 4 (ESD)
- IEC61000-4-5 (surge)
- AEC Q101 Qualified and PPAP Capable

LESDA12AW5T1G


SC-88A/SOT-353



ORDERING INFORMATION

Device	Marking	Shipping
LESDA12AW5T1G	6X	3000/Tape & Reel

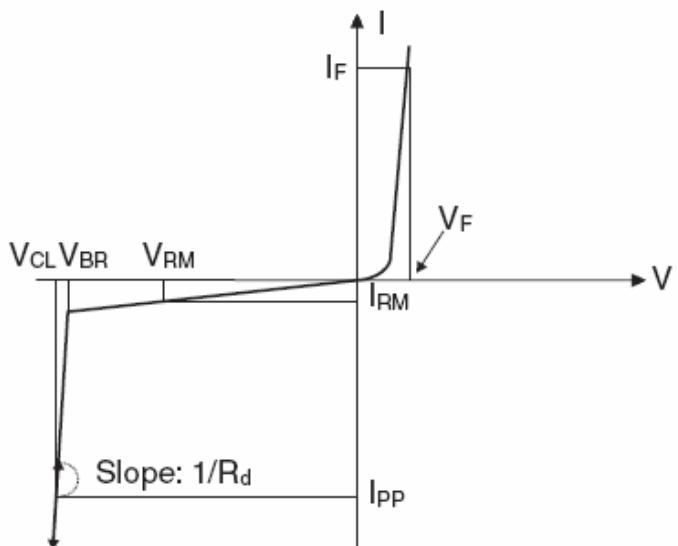
Absolute Ratings ($T_{amb}=25^{\circ}C$)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power ($t_p = 8/20\mu s$)	25	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-60 to +150	°C
T_{op}	Operating Temperature Range	-60 to +150	°C
T_j	Maximum junction temperature	150	°C
V_{PP}	Electrostatic discharge IEC61000-4-2 (contact discharge) IEC61000-4-2 (air discharge)	8 15	kV kV

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Electrical Parameter

Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{CL}	Clamping voltage
I_R	Leakage current
I_{PP}	Peak pulse current
C	Capacitance



Electrical Characteristics

Part Numbers	V_{BR}			V_{RM}	I_R	V_{FP}	C
	Min.	Typ	Max.	v	μA	$I_F = 1A$ 8/20 μs	f=1MHz; $V_R = 0 V$; pF
	v	v	v	v	μA	v	
LESDA12AW5T1G	13.3	14.6	15.8	12	1	1.5	15

GRAPHICAL DATA

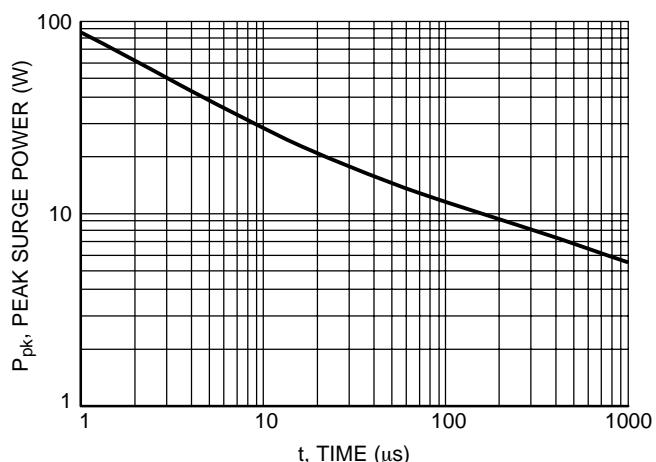


Figure 1. Pulse Width

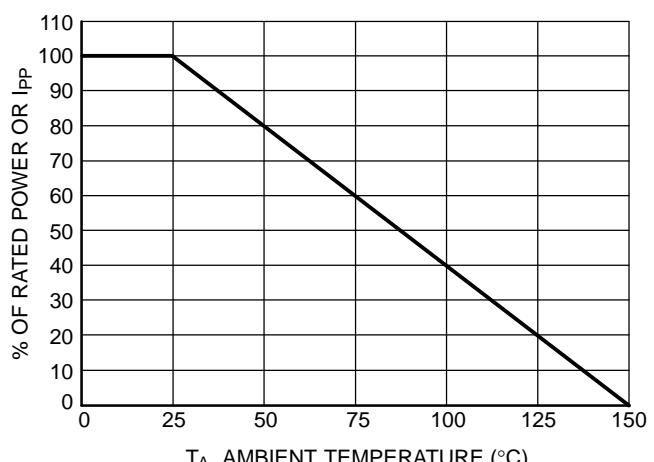


Figure 2. Power Derating Curve

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GRAPHICAL DATA

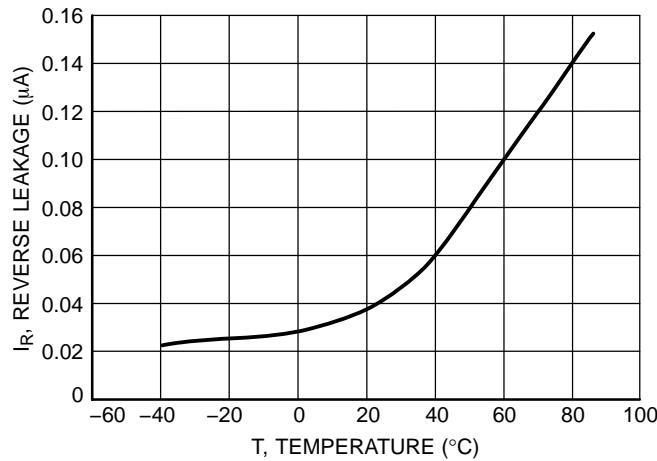


Figure 3. Reverse Leakage versus Temperature

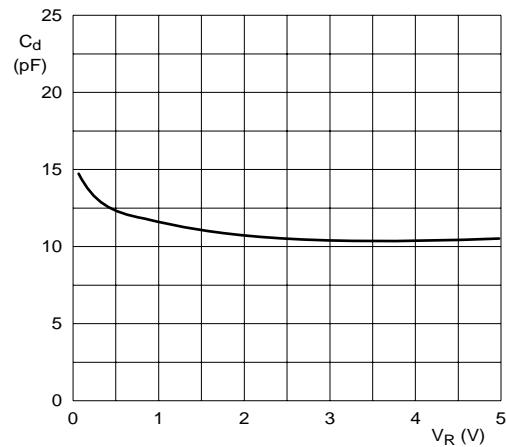


Figure 4. Capacitance

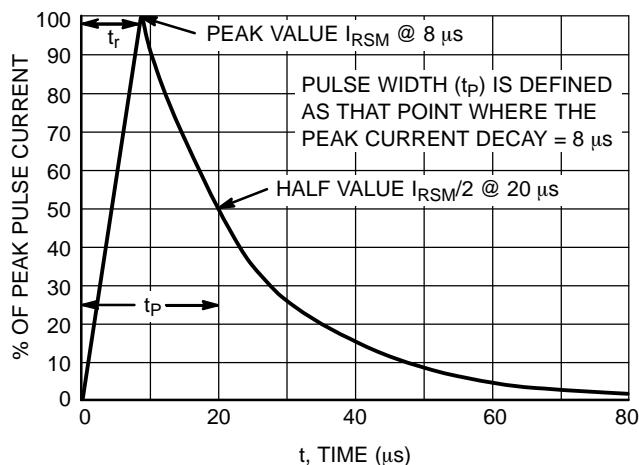


Figure 5. 8 × 20 μs Pulse Waveform

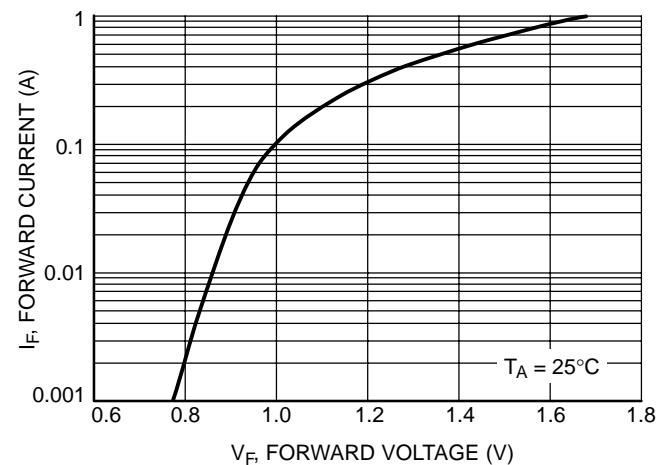
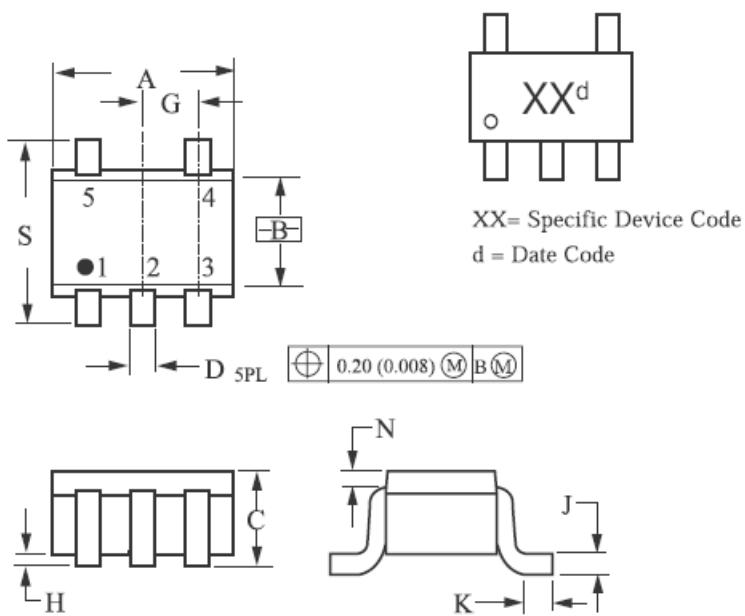


Figure 6. Forward Voltage

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PACKAGE DIMENSIONS

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DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.10	0.031	0.043
D	0.10	0.30	0.004	0.012
G	0.65 BSC		0.026 BSC	
H	—	0.10	—	0.004
J	0.10	0.25	0.004	0.010
K	0.10	0.30	0.004	0.012
N	0.20 REF		0.008 REF	
S	2.00	2.20	0.079	0.087