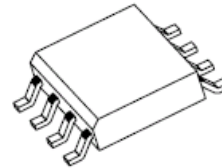


**FEATURES**

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Bidirectional
- ✓ Low capacitance for high-speed data lines
- ✓ 300 W @ 8/20  $\mu$ s
- ✓ Protects 2 I/O Lines
- ✓ Low leakage current
- ✓ SO-8 Packaging
- ✓ Solid-state silicon avalanche technology
- ✓ This is a Pb - Free Device
- ✓ All SMC parts are traceable to the wafer lot
- ✓ Additional testing can be offered upon request

**TVS ARRAY SERIES**

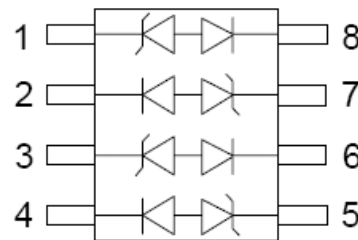
**SO-8**



**DESCRIPTION**

The LCDAXX series of TVS array are designed to protect sensitive electronics from damage or latch-up due to ESD and other voltage-induced transient events. Each device will protect two high-speed lines. they are bi-directional devices and may be used on lines where the signal polarities are above and below ground.

**SCHEMATIC & PIN CONFIGURATION**



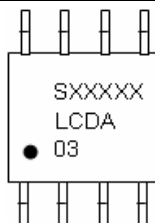
**APPLICATION**

- ✓ High-Speed Data Lines
- ✓ Microprocessor Based Equipment
- ✓ Universal Serial Bus (USB) Port Protection
- ✓ Notebooks, Desktops, and Servers
- ✓ Instrumentation
- ✓ LAN/WAN Equipment
- ✓ Peripherals

**MECHANICAL CHARACTERISTICS**

- ✓ SO-8 Surface Mount Package
- ✓ Approximate Weight: 0.1 grams
- ✓ PIN #1 Indicator: DOT on top of package
- ✓ Packaging: Tubes or Tape & Reel per EIA Standard 481

**MARKING DIAGRAM**



Where XXXXX is YYWWL

LCDA03 = Part Name  
S = S  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
LCDA03 THRU LCDA24	SO-8 (Pb-Free)	2500pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

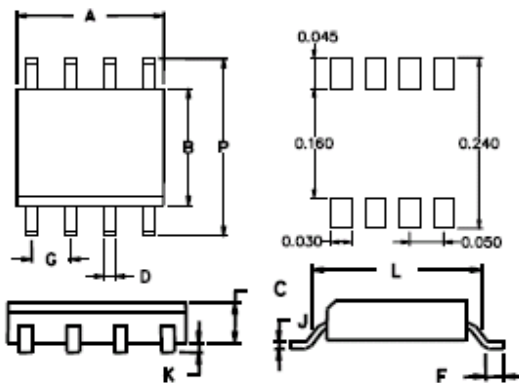
**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
P	Peak Pulse Power, 8/20 $\mu$ s Waveshape	300	W
T <sub>J</sub>	Operating Temperature	-55 to +125	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C
T <sub>L</sub>	Lead Soldering Temperature	260 (10 Sec.)	°C

**ELECTRICAL CHARACTERISTICS @ 25 °C**

Part Number	Stand-off Voltage $V_{wm}$ (v) Max	Breakdown Voltage $V_{BR}$ @1mA (V) Min	Clamping Voltage $V_c$ @ 1 A (V) Max	Leakage Current $I_R$ @ $V_{wm}$ ( $\mu$ A) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max	Temperature Coefficient of $V_{BR}$ ( $V_{BR}$ ) a( $V_{BR}$ ) mv/°C Max
LCDA03	3.3	4	7	200	5	-5
LCDA05	5.0	6	9.8	20	5	1
LCDA12	12.0	13.3	19	1	5	8
LCDA15	15.0	16.7	24	1	5	11
LCDA24	24.0	26.7	43	1	5	28

**PACKAGE OUTLINES & DEMENSIONS**



DIM	INCHES		MILLIMETERS	
	MIN.	MAX	MIN.	MAX.
A	0.189	0.196	4.8	5.0
B	0.150	0.157	3.8	4.0
C	0.053	0.069	1.35	1.75
D	0.011	0.021	0.28	0.53
F	0.016	0.050	0.41	1.27
G	0.050 BSC		1.27 BSC	
J	0.006	0.010	0.15	0.25
K	0.004	0.008	0.10	0.20
L	0.189	0.206	4.80	5.23
P	0.228	0.244	5.79	6.19

**TYPICAL CHARACTERISTICS**

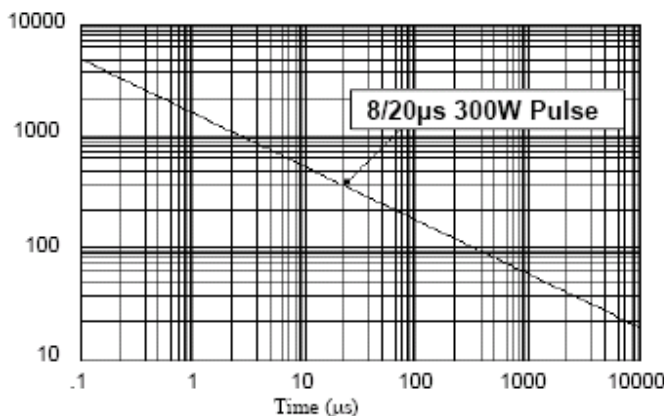


Figure 1. Peak Pulse Power Vs Pulse Time ( $\mu$ s)

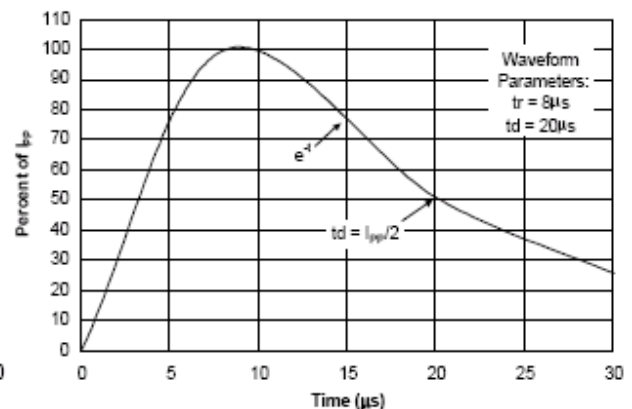


Figure 2. Pulse Wave Form



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