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## **TVS ARRAY SERIES**

#### **FEATURES**

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Bidirectional
- ✓ Low Capacitance 25 pF
- ✓ Provides Electrically Isolated Protection
- √ 300 W @ 8/20 µs
- ✓ Protects 8 Lines
- ✓ SO-16 Packaging
- √ This is a Pb Free Device
- ✓ All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

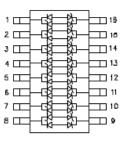


SO-16

#### DESCRIPTION

The S16LCCXX-8 series of TVS array have been designed to provide bidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), lightning and other voltage-induced transient events. The device can be used to protect combinations of 8 bidirectional lines up to 24 volts.

#### **SCHEMATIC & PIN CONFIGURATION**



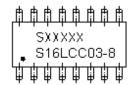
## **APPLICATION**

- ✓ RS-422, RS-423, & RS-485 Interfaces
- ✓ WAN/LAN Equipment
- ✓ Wireless Communication Circuits
- ✓ Ethernet 10/100 Base T
- ✓ Low Voltage ASICs

#### **MECHANICAL CHARACTERISTICS**

- ✓ SO-16 Surface Mount Package
- ✓ Approximate Weight: 0.13 grams
- ✓ PIN #1 Indicator: DOT on top of package
- ✓ Packaging: Tubes or Tape & Reel per EIA Standard 481

## **MARKING DIAGRAM**



Where XXXXX is YYWWL

S16LCC03-8 = Part Name

S = S YY = Year WW = Week L = Lot Number

Cautions: Molding resin

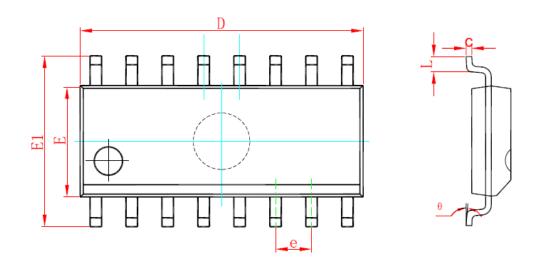
Epoxy resin UL:94V-0

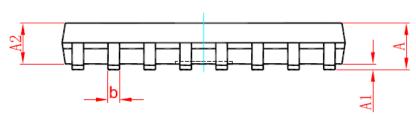
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## **PACKAGE OUTLINES & DEMENSIONS**





Symbol	Dimensions In Millimeters		Dimensions In Inches		
	Min	Max	Min	Max	
A	1. 350	1.750	0. 053	0. 069	
A1	0.100	0. 250	0. 004	0. 010	
A2	1. 350	1. 550	0. 053	0. 061	
b	0. 330	0.510	0. 013	0. 020	
С	0.170	0. 250	0. 007	0. 010	
D	9.800	10. 200	0. 386	0. 402	
E	3.800	4. 000	0. 150	0. 157	
E1	5. 800	6. 200	0. 228	0. 244	
е	1. 270 (BSC)		0. 050 (BSC)		
L	0.400	1. 270	0. 016	0. 050	
θ	0°	8°	0°	8°	

# SO-16(CJ)



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## **Ordering Information:**

Device	Package	Shipping
S16LCC03-8 THRU S16LCC24-8	SO-16 (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		
Р	Peak Pulse Power, 8/20 μs Waveshape	300	W		
$T_J$	Operating Temperature	-55 to +125	°C		
$T_{STG}$	Storage Temperature	-55 to +150	°C		
$T_L$	Lead Soldering Temperature	260 (10 Sec.)	°C		

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ELECTRICAL CHARACTERISTICS @ 25 °C							
Part Number	Stand-off Voltage V <sub>wm</sub> (v) Max	Breakdown Voltage V <sub>BR</sub> @1mA (V) Min	Clamping Voltage V <sub>c</sub> @ 1 A (V) Max	Leakage Current I <sub>R</sub> @ V <sub>wm</sub> (uA) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max	Temperature Coefficient of V <sub>BR</sub> a(V <sub>BR</sub> ) mv/°C Max	
S16LCC03-8	3.3	4	7	200	25	-5	
S16LCC05-8	5.0	6	9.8	20	25	1	
S16LCC12-8	12.0	13.3	19	1	25	8	
S16LCC15-8	15.0	16.7	24	1	25	11	
S16LCC24-8	24.0	26.7	43	1	25	28	

## TYPICAL CHARACTERISTICS

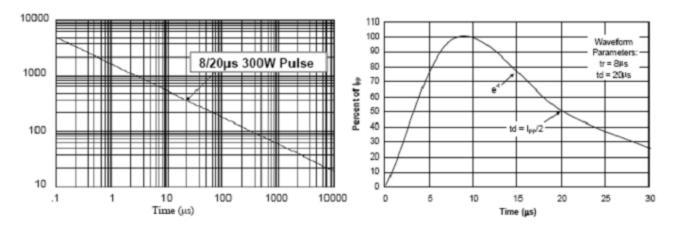


Figure 1. Peak Pulse Power Vs Pulse Time (µs)

Figure 2. Pulse Wave Form

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