# SANGDEST

#### **MICROELECTRONICS**

## **Technical Data**

## Data Sheet N0300, Rev. -

## FEATURES

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

#### DESCRIPTION

The SMDAXXC-5 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 five bidirectional lines.

## SCHEMATIC & PIN CONFIGURATION

MECHANICAL CHARACTERISTICS

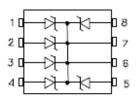
SO-8 Surface Mount Package

Standard 481

Approximate Weight: 0.1 grams

PIN #1 Indicator: DOT on top of package

Packaging: Tubes or Tape & Reel per EIA

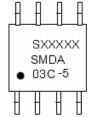


### APPLICATION

- ✓ RS-232 & RS-422 Data Lines
- Microprocessor Based Equipment
- Notebooks, Desktops, & Servers
- ✓ LAN/WAN Equipment
- Serial and Parallel Port
- Peripherals

Cautions: Molding resin

## MARKING DIAGRAM



Epoxy resin UL:94V-0

S = S YY = Year WW = Week = Lot Number 1

SO-8

# Where XXXXX is YYWWL SMDA03C-5 = Part Name

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## **Green Products**

SMDA03C-5

SMDA24C-5

THRU

## TVS ARRAY SERIES



Technical Data Data Sheet N0300, Rev. - **Green Products** 

## **Ordering Information:**

Device	Package	Shipping
SMDA03C-5 THRU SMDA24C-5	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 μs Waveshape	300	W			
TJ	Operating Temperature	-55 to +125	°C			
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C			
TL	Lead Soldering Temperature	260 (10 Sec.)	°C			

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## SANGDEST MICROELECTRONICS

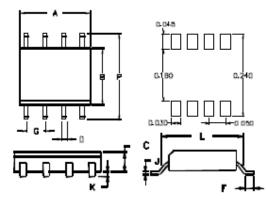
# SMDA03C-5 THRU SMDA24C-5

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## **Green Products**

ELECTRICAL CHARACTERISTICS @ 25 °C						
Part Number	Stand-off	Breakdown	Clamping	Leakage	Capacitance	Temperature
	Voltage	Voltage	Voltage	Current	(f = 1MHz)	Coefficient
		VBR	Vc	I <sub>R</sub>	С	of V <sub>BR</sub>
	Vwm	@1mA	@1A	@ V <sub>wm</sub>	@ 0V	a(V <sub>BR</sub> )
	(v)	(V)	(V)	(μA)	(pF)	mv/°C
	Max	Min	Max	Max	Max	Max
SMDA03C-5	3.3	4	7	200	300	-5
SMDA05C-5	5.0	6	9.8	40	200	3
SMDA12C-5	12.0	13.3	19	1	75	10
SMDA15C-5	15.0	16.7	24	1	50	13
SMDA24C-5	24.0	26.7	43	1	35	30

### PACKAGE OUTLINES & DEMENSIONS



	INCHES		MILLIMETERS		
DIM	MIN.	MAX	MIN.	MAX.	
A	0.189	0.196	4.8	5.0	
В	0.150	0.157	3.8	4.0	
С	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	
Р	0.228	0.244	5.79	6.19	

TYPICAL CHARACTERISTICS

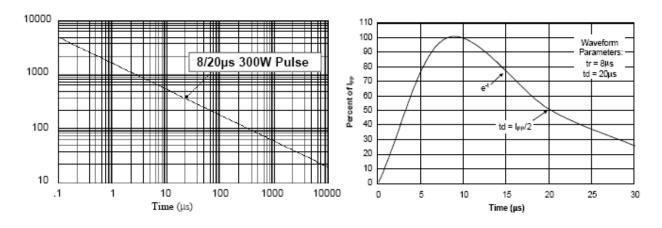


Figure 1. Peak Pulse Power Vs Pulse Time (µs)

Figure 2. Pulse Wave Form

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# SMDA03C-5 THRU SMDA24C-5

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#### **Green Products**

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