

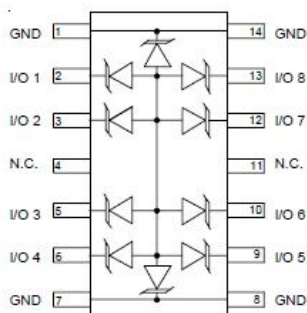
## S14C03-8 THRU S14C36-8 TVS ARRAY SERIES



### Description

The S14CXX-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 36 volts.

### Schematic & Pin Configuration



### Features

- Protects 3.3, 5, 12, 15, 24, 36 V Components
- Bidirectional
- Provides Electrically Isolated Protection
- 300 W @ 8/20 us
- Protects 8 Lines
- SO-14 Packaging
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Mechanical Characteristics

- SO-14 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

### Application

- RS-232, RS-422, RS-423 & RS 485
- LAN/WAN Equipment
- Serial and Parallel Ports
- Board Level Interface Connection
- Portable Instrumentation
- Computer & Peripherals

### Absolute Maximum Ratings:

Parameter	Symbol	Value	Units
Peak Pulse Power, 8/20 $\mu$ s Wave shape	P	300	W
Operating Temperature	T <sub>J</sub>	-55 to +125	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C
Lead Soldering Temperature	T <sub>L</sub>	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 $I_R$ @ $V_{wm}$ (uA) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max	Temperature Coefficient of $V_{BR}$ a( $V_{BR}$ ) mv/°C Max
S14C03-8	3.3	4	7	200	300	-5
S14C05-8	5.0	6	9.8	40	200	1
S14C12-8	12.0	13.3	19	1	80	8
S14C15-8	15.0	16.7	24	1	70	11
S14C24-8	24.0	26.7	43	1	45	28
S14C36-8	36.0	40	51	1	35	-

**Ratings and Characteristics Curves**

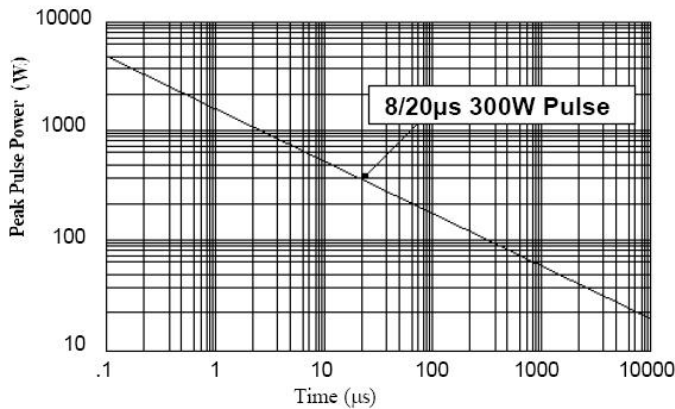


Figure 1. Peak Pulse Power Vs Pulse Time (µs)

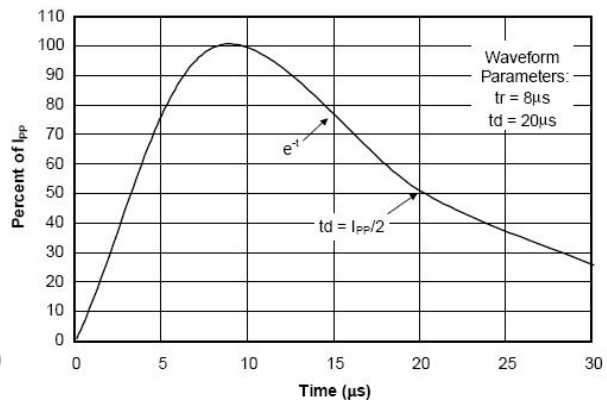
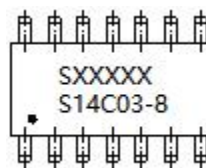


Figure 2. Pulse Wave Form

**Ordering Information**

Device	Package	Shipping
S14C03-8 THRU S14C36-8	SO-14 (Pb-Free)	2500pcs / reel
S14C03-8TR THRU S14C36-8TR	SO-14 (Pb-Free)	2500pcs / reel

**Marking Diagram**



Where XXXXX is YYWWL

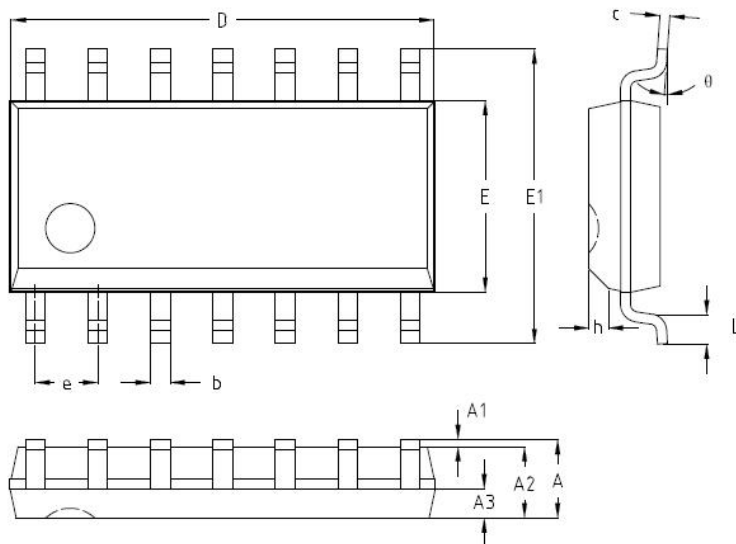
S14C03-8 = Part Name  
S = S  
YY = Year  
WW = Week  
L = Lot Number

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

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

## Mechanical Dimensions SO-14



SYMBOL	Millimeters		
	MIN.	Normal	MAX.
A	-	-	1.75
A1	0.05	-	0.09
A2	1.35	1.45	1.55
A3	0.60	0.65	0.70
b	0.35	-	0.50
c	0.19	-	0.25
D	8.50	8.60	8.70
E	3.80	3.90	4.00
E1	5.80	6.00	6.20
e	1.27(BSC)		
h	0.30	-	0.50
L	0.40	-	0.80
θ	0°	-	8°



S14C03-8  
THRU  
S14C36-8

**Technical Data**  
**Data Sheet N0287, REV.-**



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