SANGDEST MICROELECTRONICS

S14C03-8 THRU S14C24-8

Technical Data
Data Sheet N0287, Rev. -

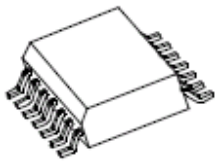
Green Products

TVS ARRAY SERIES

FEATURES

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Bidirectional
- ✓ Provides Electrically Isolated Protection
- ✓ 300 W @ 8/20 μs
- ✓ 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

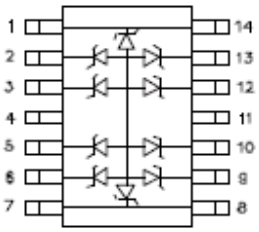
SO-14



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 24 volts.

SCHEMATIC & PIN CONFIGURATION



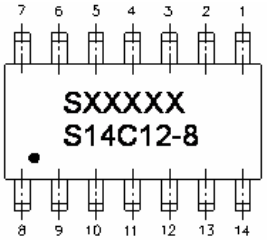
APPLICATION

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

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

MARKING DIAGRAM



Where XXXXX is YYWWL

S14C12-8 = Part Name
S = S
YY = Year
WW = Week
L = Lot Number

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

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Ordering Information:

Device	Package	Shipping
S14C03-8 THRU S14C24-8	SO-14 (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
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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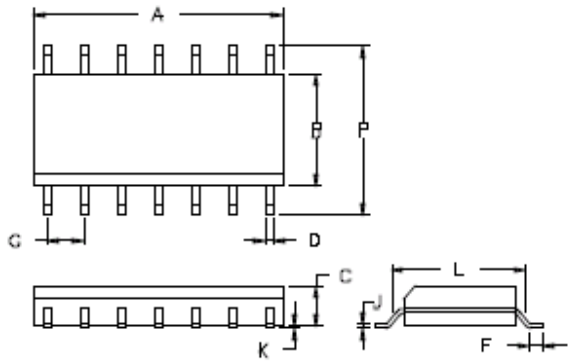
ELECTRICAL CHARACTERISTICS @ 25 °C

Part Number	Stand-off Voltage V_{wm} (v) Max	Breakdown Voltage V_{BR} @1mA (V) Min	Clamping Voltage V_c @ 1 A (V) Max	Leakage Current I_R @ V_{wm} (μA) 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	75	8
S14C15-8	15.0	16.7	24	1	50	11
S14C24-8	24.0	26.7	43	1	35	28

PACKAGE OUTLINES & DEMENSIONS



	INCHES		MILLIMETERS	
DIM	MIN.	MAX	MIN.	MAX.
A	0.337	0.344	8.55	8.75
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	0.010	0.10	0.25
L	0.189	0.206	4.80	5.23
P	0.228	0.244	5.79	6.19

TYPICAL CHARACTERISTICS

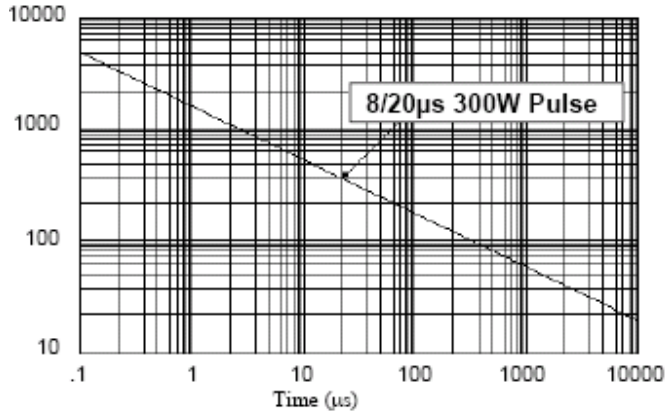


Figure 1. Peak Pulse Power Vs Pulse Time (μs)

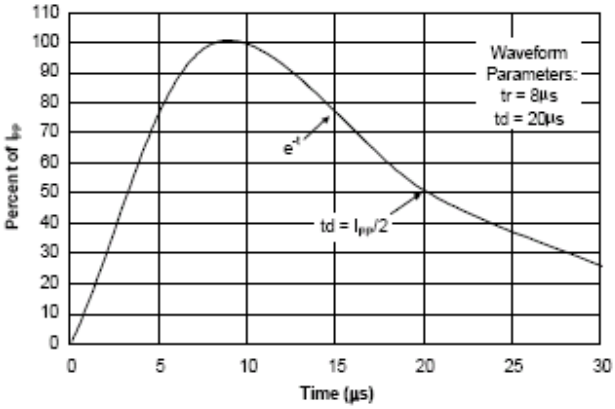


Figure 2. Pulse Wave Form

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