

Bidirectional TVS Array for Protection of Eight Lines

APPLICATIONS

- ◆ Microprocessor Based Equipment
- ◆ RS-232 and RS-422 Data Lines
- ◆ LAN/WAN Equipment
- ◆ Notebooks, Desktops and Servers
- ◆ Instrumentation
- ◆ Set Top Box
- ◆ Serial and Parallel Ports
- ◆ Peripherals

IEC COMPATIBILITY

- ◆ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 η s)
- ◆ IEC61000-4-5 (Lightning) 12A (8/20 μ s)

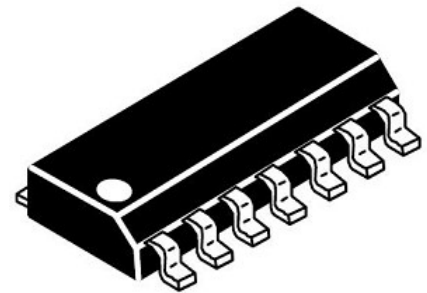
FEATURES

- ◆ 300 Watts Peak Pulse Power per Line ($t_p=8/20\mu$ s)
- ◆ Protects Eight Data Lines
- ◆ Working Voltage : 5V, 12V, 15V and 24V
- ◆ Monolithic Design
- ◆ RoHS Compliant

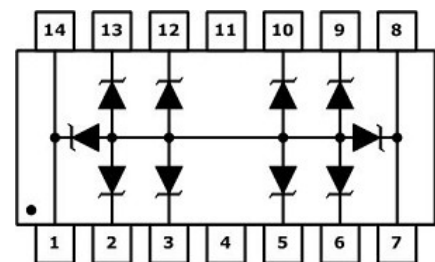
MECHANICAL CHARACTERISTICS

- ◆ JEDEC SO-14 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 150 Milligrams (Approximate)
- ◆ Quantity Per Reel : 2,500pcs
- ◆ Reel Size : 13 inch
- ◆ Lead Finish : Lead Free

SO-14



PIN CONFIGURATION



DEVICE CHARACTERISTICS

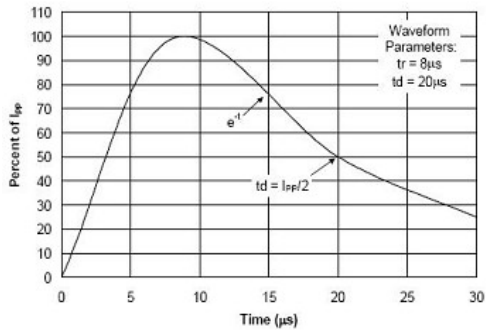
MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20µs waveform)	P _{PP}	300	Watts
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

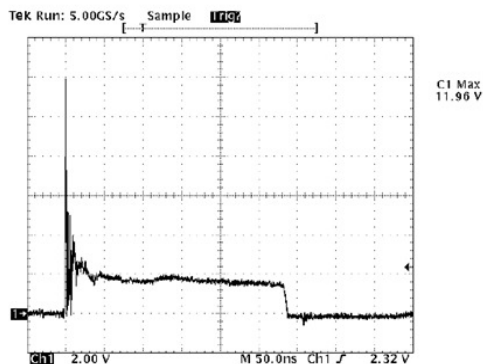
ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _C	V _C		I _R	C _T
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(µA) (max.)	(pF) (typ.)
ST-SMDA05C-8-S14	SMDA05C-8	5	6	1	9.8	23	15	20	350
ST-SMDA12C-8-S14	SMDA12C-8	12	13.3	1	19	38	8	1	120
ST-SMDA15C-8-S14	SMDA15C-8	15	16.7	1	24	42	6	1	75
ST-SMDA24C-8-S14	SMDA24C-8	24	26.7	1	43	55	4	1	50

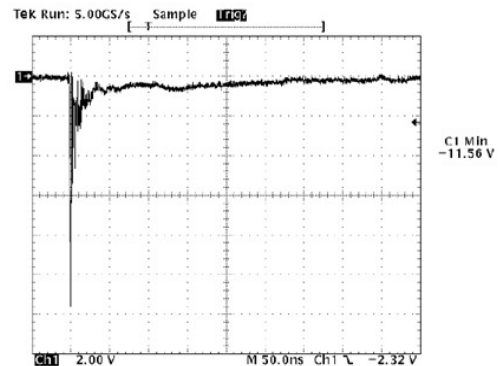
Pulse Waveform



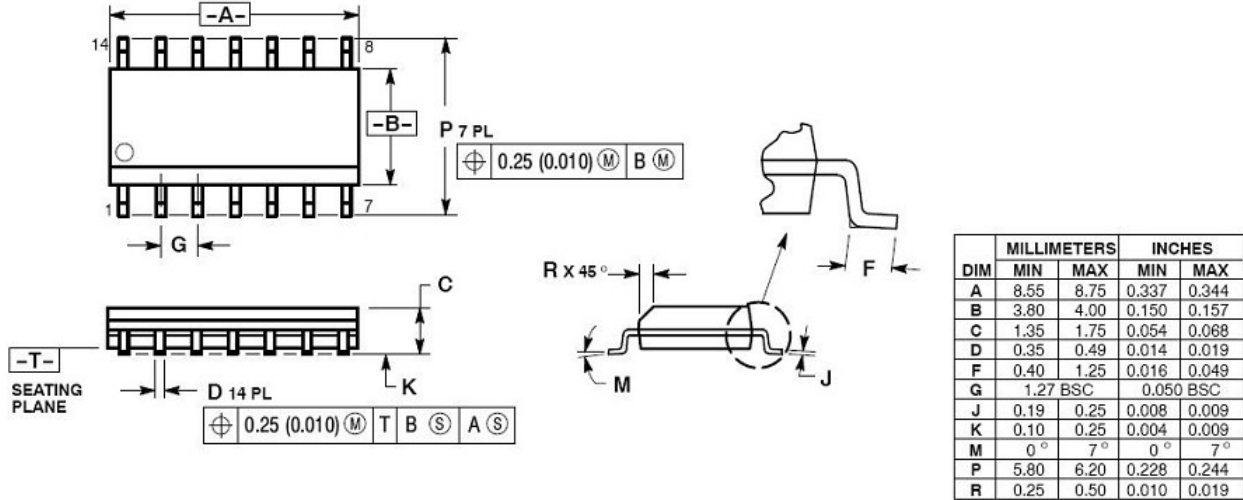
ESD Clamping
(8kV Contact per IEC 61000-4-2)



ESD Clamping
(-8kV Contact per IEC 61000-4-2)



SO-14 PACKAGE OUTLINE & DIMENSIONS



* SOLDERING FOOTPRINT

