

## STANDARD CAPACITANCE TVS ARRAY

### APPLICATIONS

- ✓ Low Frequency I/O Ports
- ✓ RS-232 & RS-423 Data Lines
- ✓ Power Bus Lines
- ✓ Monitoring & Industrial Signal and Data Ports
- ✓ Microprocessor Based Equipment

### IEC COMPATIBILITY (EN61000-4)

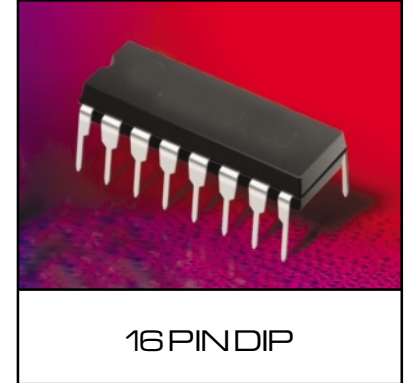
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 $\mu$ s Level 2 (Line-Ground) & Level 3 (Line-Line)

### FEATURES

- ✓ 800 Watts Peak Pulse Power per Line ( $t_p=8/20\mu$ s)
- ✓ Unidirectional & Bidirectional Configuration
- ✓ ESD Protection > 40 kilovolts
- ✓ Available in 5V, 12V, 15V & 24V
- ✓ Standard Dual-In-Line Package
- ✓ Protects 8 to 12 Lines

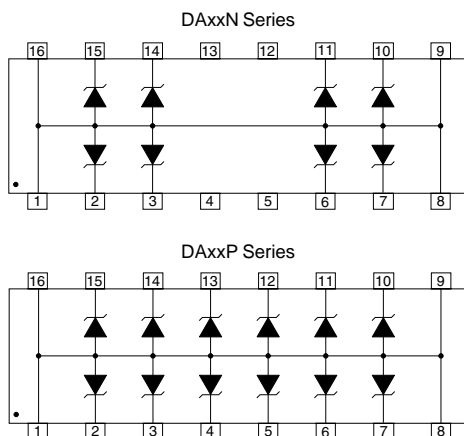
### MECHANICAL CHARACTERISTICS

- ✓ Molded 16 Pin Dual-In-Line (DIP) Package
- ✓ Weight 1.2 grams (Approximate)
- ✓ Flammability rating UL 94V-0
- ✓ Packaging: 25 Pieces Per Tube
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package

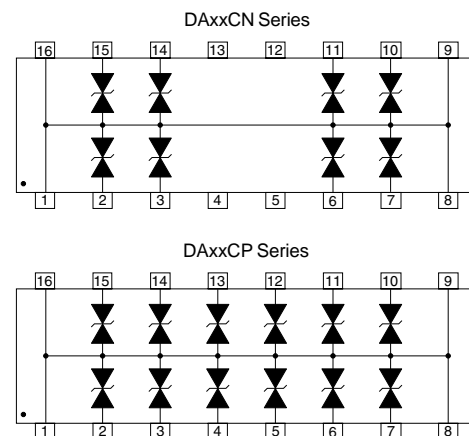


## PIN CONFIGURATIONS

### UNIDIRECTIONAL



### BIDIRECTIONAL



## DEVICE CHARACTERISTICS

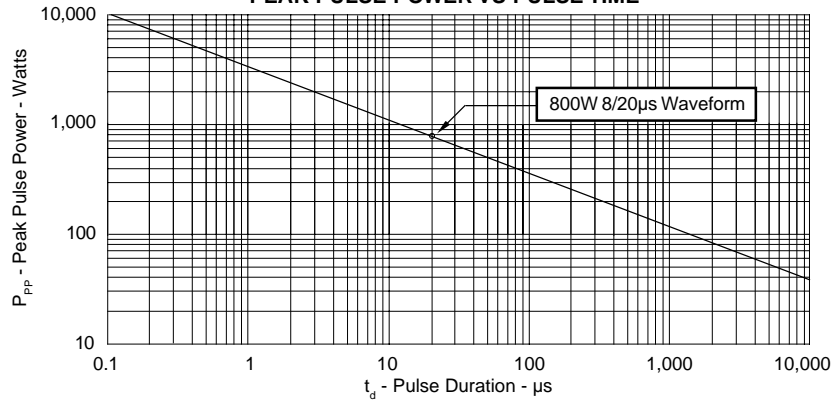
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	$P_{PP}$	800	Watts
Operating Temperature	$T_J$	-55°C to 150°C	°C
Storage Temperature	$T_{STG}$	-55°C to 150°C	°C
Forward Surge Rating (See Note 1)	$I_F$	10	Amps

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (See Note 1)	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
	$V_{WM}$ VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ $I_P = 10A$ $V_C$ VOLTS	@ 8/20 $\mu s$ $V_C @ I_{PP}$	@ $V_{WM}$ $I_D$ $\mu A$	@ 0V, 1 MHz $C_J$ pF
DA05N	5.0	6.0	12.5	24.6V @ 45A	200	880
DA12N	12.0	13.3	26.0	32.9V @ 34A	2	440
DA15N	15.0	16.7	33.0	37.7V @ 27A	2	400
DA24N	24.0	26.7	52.1	48.5V @ 22A	2	275
DA05P	5.0	6.0	12.5	24.6V @ 45A	200	880
DA12P	12.0	13.3	26.0	32.9V @ 34A	2	440
DA15P	15.0	16.7	33.0	37.7V @ 27A	2	400
DA24P	24.0	26.7	52.1	48.5V @ 22A	2	275
DA05CN	5.0	6.0	12.5	24.6V @ 45A	200	500
DA12CN	12.0	13.3	26.0	32.9V @ 34A	2	385
DA15CN	15.0	16.7	33.0	37.7V @ 27A	2	300
DA24CN	24.0	26.7	52.1	48.5V @ 22A	2	200
DA05CP	5.0	6.0	12.5	24.6V @ 45A	200	500
DA12CP	12.0	13.3	26.0	32.9V @ 34A	2	385
DA15CP	15.0	16.7	33.0	37.7V @ 27A	2	300
DA24CP	24.0	26.7	52.1	48.5V @ 22A	2	200

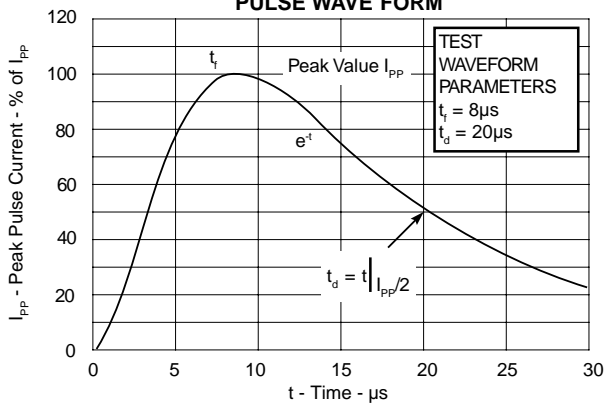
**Note 1:** The "C" suffix specifies a bidirectional device, such as DA05CN or DA12CP.

GRAPHS

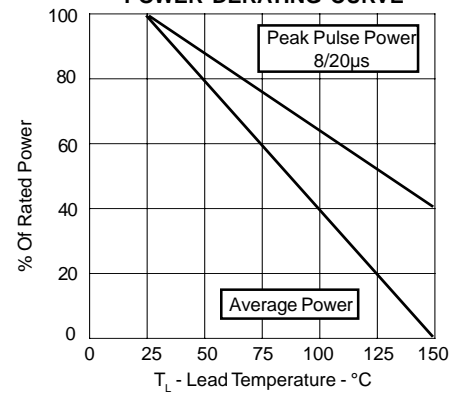
**FIGURE 1**  
**PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2**  
**PULSE WAVE FORM**



**FIGURE 3**  
**POWER DERATING CURVE**



**PACKAGE OUTLINE & DIMENSIONS**

PACKAGE OUTLINE		16 PINDIP			
DIMENSIONS					
DIM	MILLIMETERS		INCHES		
	MIN	MAX	MIN	MAX	
A	-	19.8	-	0.780	
B	6.10	6.60	0.240	0.260	
C	7.37	7.87	0.290	0.310	
D	0.25	0.50	0.010	0.020	
E	0°	10°	0°	10°	
F	0.51	-	0.020	-	
G	-	5.08	-	0.200	
H	3.17	-	0.125	-	
I	-	1.78	-	0.070	
J	0.84 TYP	0.84 TYP	0.033 TYP	0.033 TYP	
K	0.38	0.53	0.015	0.021	
L	2.54 TYP	2.54 TYP	0.100 TYP	0.100 TYP	
<p><b>NOTES:</b></p> <p>1. Dimensions are exclusive of mold flash and metal burrs.</p> <p><b>BULK ORDERING NOMENCLATURE:</b></p> <p>1. No Suffix = Product Shipped in Tubes of 25 pcs per Tube.</p>					
<p><b>Outline &amp; Dimensions: Rev 1 - 11/01, 06003</b></p>					

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