

STANDARD TVS ARRAYS

APPLICATIONS

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

IEC COMPATIBILITY (EN61000-4)

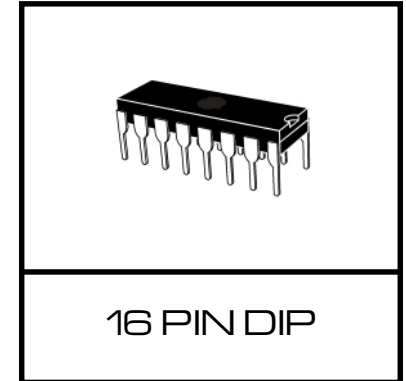
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s - Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

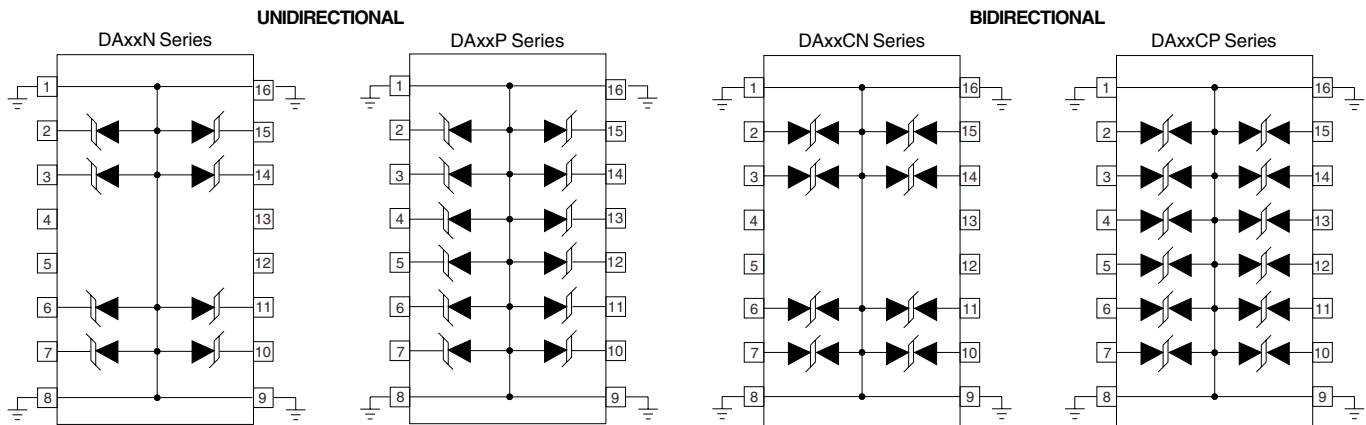
- ✓ **ESD PROTECTION > 40 kilovolts**
- ✓ 800 Watts Peak Pulse Power Dissipation per Line (8/20 μ s)
- ✓ Protects 8 to 12 Lines
- ✓ Unidirectional & Bidirectional Configurations

MECHANICAL CHARACTERISTICS

- ✓ Molded Plastic Dual-in-Line 16 Pin Package
- ✓ Weight 1.2 grams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ Device Marking: Logo, Part Number & Pin One Defined By DOT on Top of Package



CIRCUIT DIAGRAMS



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 (1/20 seconds @ 25°C)	V_F	10	Amps

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (See Notes 1 & 2)	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_p = 1A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	TYPICAL CAPACITANCE 0V @ 1 MHz C 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: Unidirectional Only: $V_F = 1.5$ Volts @ 10A, 300 μs (square wave).

Note 2: The "C" suffix specifies a bidirectional device, such as DA05CN or DA12CP.

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

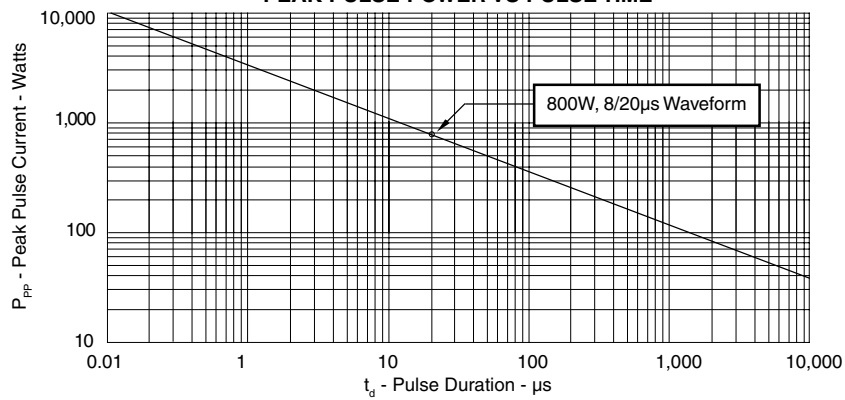


FIGURE 2
PULSE WAVE FORM

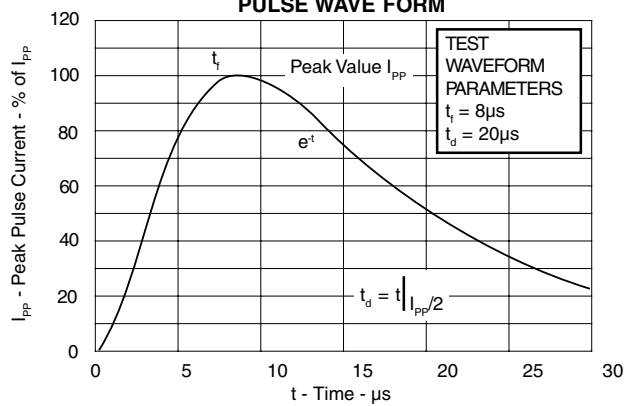
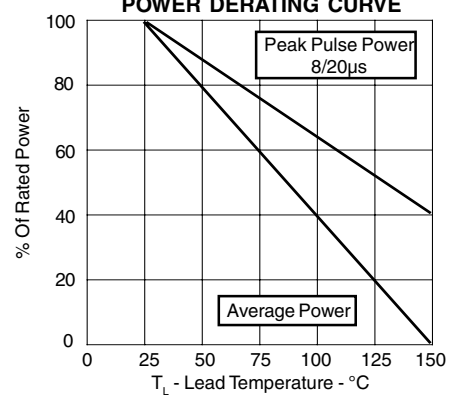
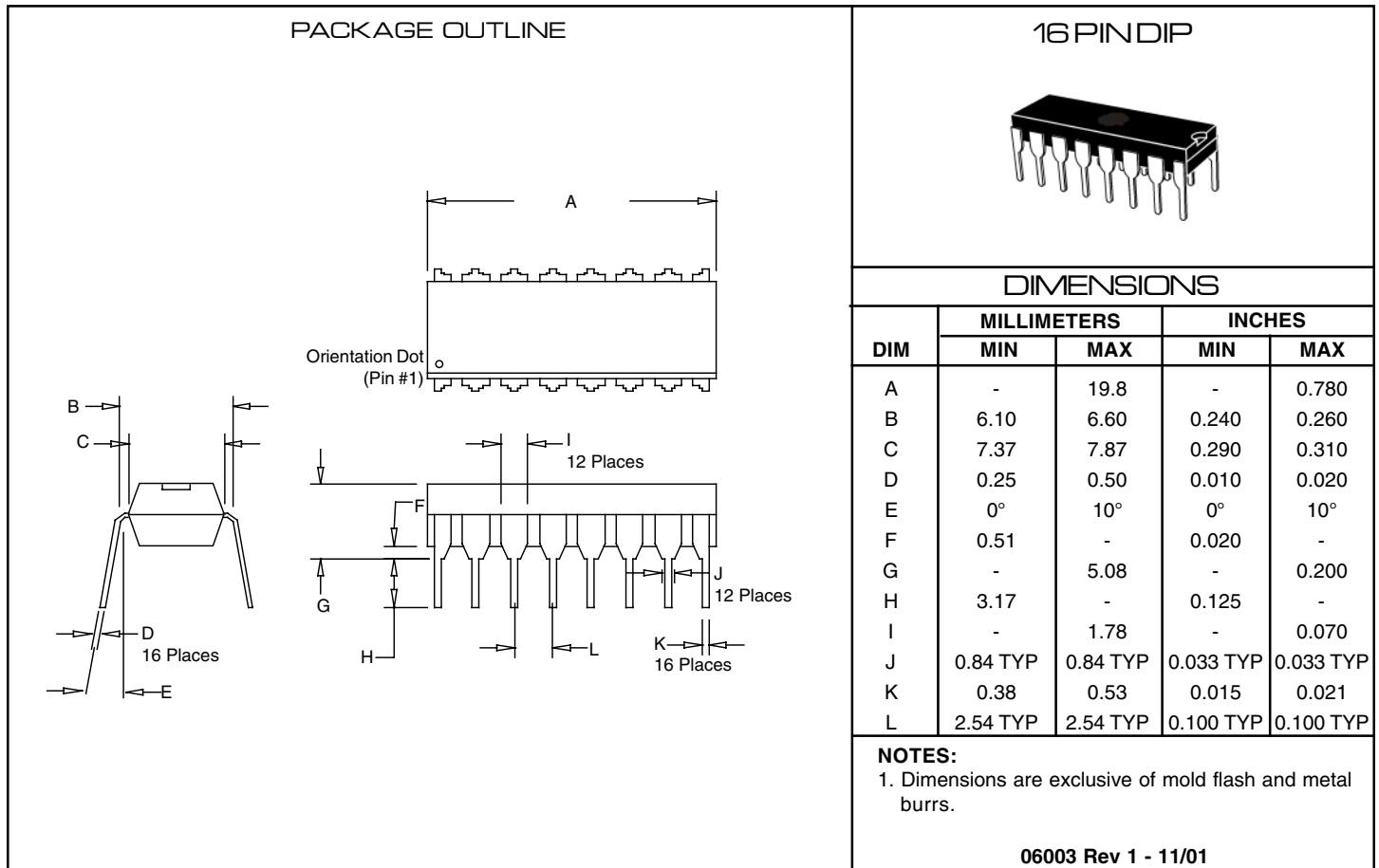


FIGURE 3
POWER DERATING CURVE



DA05N thru DA24CP

PACKAGE OUTLINE & DIMENSIONS



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