

## STANDARD CAPACITANCE TVS ARRAY

### APPLICATIONS

- ✓ Military & Aerospace Data Line Protection
- ✓ RS-232 & RS-423 Data Lines
- ✓ Microprocessor Based Equipment
- ✓ Multiple Data & Power Bus Line Protection

### IEC COMPATIBILITY (EN61000-4)

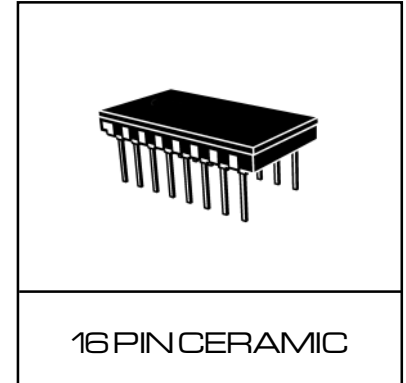
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 $\mu$ s Level 2 (Line-Ground) & Level 3 (Line-Line)

### FEATURES

- ✓ MIL-STD-461 Compatible
- ✓ Protects I/O Devices
- ✓ Satisfies Military NEMP Requirements
- ✓ 1300 Watts Peak Pulse Power per Line ( $t_p=8/20\mu s$ )
- ✓ Unidirectional & Bidirectional Configuration
- ✓ ESD Protection > 40 kilovolts
- ✓ Internal Common Ground
- ✓ Available in Multiple Voltage Types: 5.0V to 30.0V
- ✓ **MULTIPLE TVS ARRAY: PROTECTS UP TO 15 LINES**

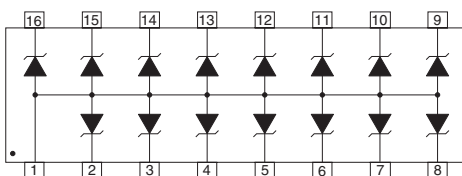
### MECHANICAL CHARACTERISTICS

- ✓ Ceramic 16 Pin Hermetically Sealed Package
- ✓ Weight 3.2 grams (Approximate)
- ✓ Flammability rating UL 94V-0
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Flag on Lead
- ✓ Screening Available Upon Request - The DLZ series can be screened upon request for military requirements in accordance with MIL-PRF-19500 (applicable test). Standard screening is available based on the following options:
  - H1 - 100% screening per test plans 05227 & 05229
  - H2 - 100% screening per test plans 05228 & 05230
- ✓ Screening to DESC Drawing #94029 (Bidirectional) & #94030 (Unidirectional) is also available

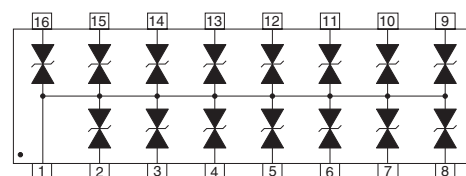


## PIN CONFIGURATIONS

UNIDIRECTIONAL



BIDIRECTIONAL



## DEVICE CHARACTERISTICS

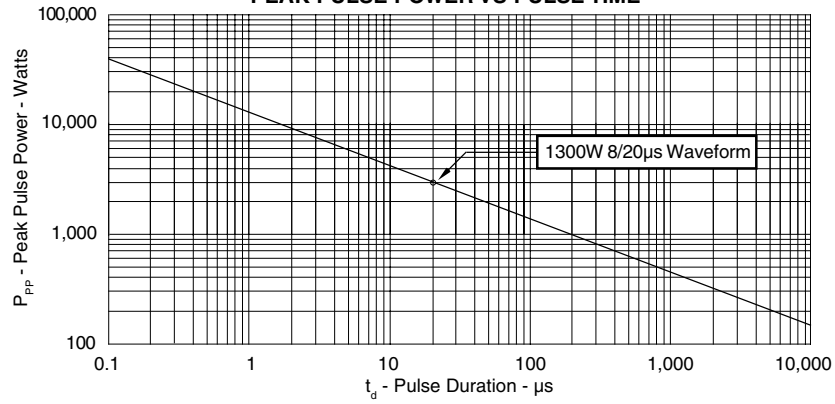
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	$P_{PP}$	1300	Watts
Operating Temperature	$T_J$	-55°C to 150°C	°C
Storage Temperature	$T_{STG}$	-55°C to 150°C	°C
Forward Surge Rating (1/20 seconds) - Unidirectional Only	$I_F$	10	Amps

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER (Note 1)	RATED STAND-OFF VOLTAGE $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_P = 1 A$ $V_C$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 $\mu s$ $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ $V_{WM}$ $I_D$ $\mu A$	MAXIMUM CAPACITANCE @ 0V, 1 MHz $C_J$ pF	TEMPERATURE COEFFICIENT OF $V_{(BR)}$ $\theta V_{(BR)}$ mV/°C
DLZ-5	5.0	6.0	10.2	19.2V @ 66A	200	880	5
DLZ-5A	5.0	6.0	9.5	18.1V @ 70A	200	880	5
DLZ-12	12.0	13.3	21.1	33.0V @ 41A	2	440	18
DLZ-12A	12.0	13.3	19.1	28.0V @ 48A	2	440	18
DLZ-17	17.0	19.2	30.4	40.0V @ 33A	2	330	20
DLZ-17A	17.0	19.2	27.5	37.4V @ 35A	2	330	20
DLZ-24	24.0	26.7	42.3	62.4V @ 21A	2	275	31
DLZ-24A	24.0	26.7	38.3	50.5V @ 26A	2	275	31
DLZ-30	30.0	33.3	52.8	62.9V @ 21A	2	220	39
DLZ-30A	30.0	33.3	47.8	60.0V @ 24A	2	220	39
DLZ-8C	8.0	8.5	13.4	29.0V @ 45A	10	440	9
DLZ-13C	13.0	14.4	22.8	34.0V @ 39A	4	385	18
DLZ-13CA	13.0	14.4	20.6	31.0V @ 43A	4	385	18
DLZ-19C	19.0	21.6	34.2	47.6V @ 28A	4	275	24
DLZ-19CA	19.0	21.6	31.0	40.5V @ 33A	4	275	24
DLZ-30C	30.0	33.3	52.8	68.7V @ 19A	4	165	39
DLZ-30CA	30.0	33.3	47.8	62.5V @ 21A	4	165	39

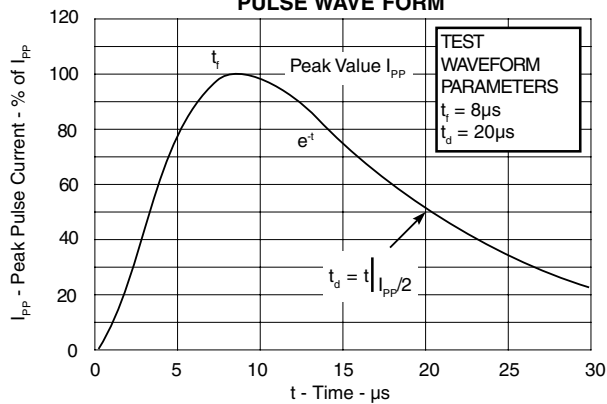
**Note 1:** Part numbers with a "C" suffix are bidirectional devices, i.e., DLZ-8C.

GRAPHS

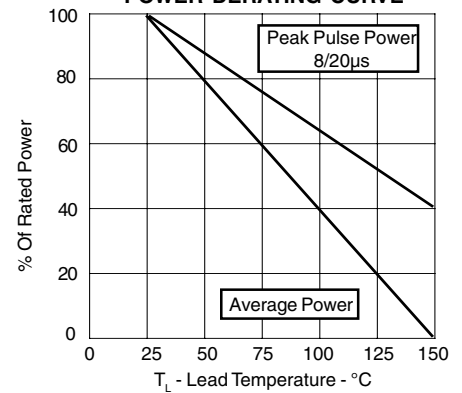
**FIGURE 1**  
**PEAK PULSE POWER VS PULSE TIME**



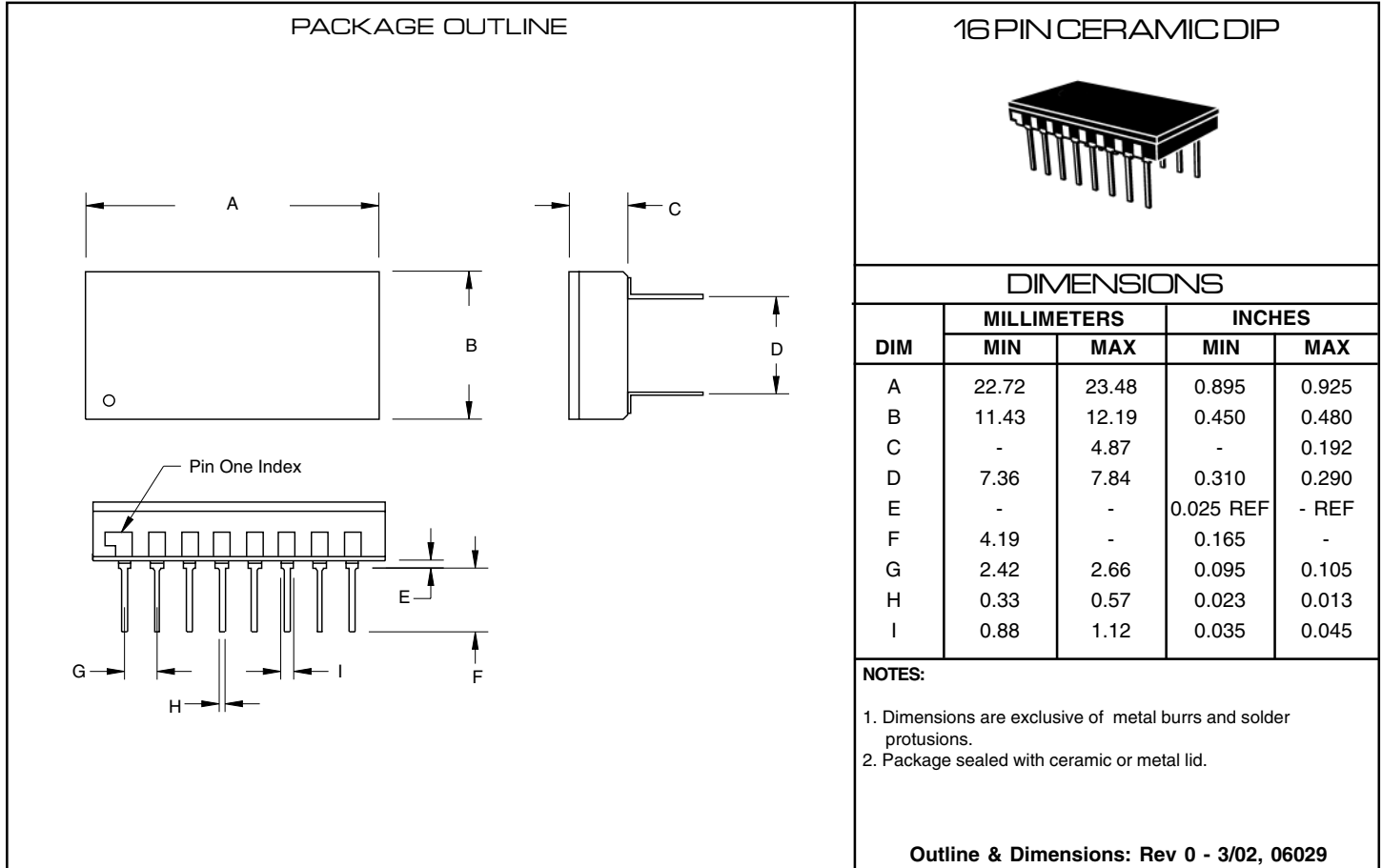
**FIGURE 2**  
**PULSE WAVE FORM**



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



## PACKAGE OUTLINE & DIMENSIONS



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