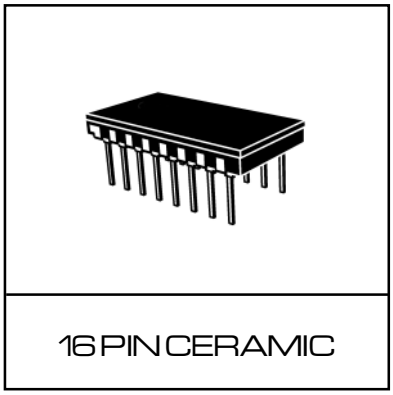
PROTEK DEVICES
Only One Name Means ProTek'Tion™

DLZ-5 thru DLZ-30CA

STANDARD CAPACITANCE TVS ARRAY



16 PIN CERAMIC

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, 8/20µs 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 (tp=8/20µs)
✔ 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

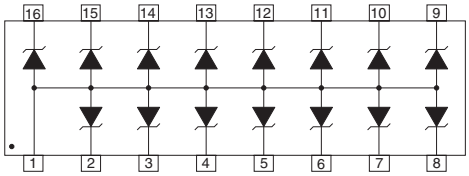
✔ Ceramic 16 Pin Hermetically Sealed Package
✔ Weight 3.2 grams (Approximate)
✔ Flammability rating UL 94V-0
✔ Marking: Logo, Part Number, Date Code & Pin One Defined By Flag on Lead
✔ Screening Available Upon Request - The DLZ series can be screened upon request for military requirements in accordance 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

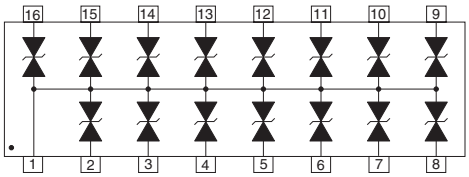
✔ Screening to DESC Drawing #94029 (Bidirectional) & #94030 (Unidirectional) is also available

PIN CONFIGURATIONS

UNIDIRECTIONAL



BIDIRECTIONAL



DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (t_p = 8/20µs) - 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) @ 8/20µs V_C @ I_{PP}	MAXIMUM LEAKAGE CURRENT @V_{WM} I_D µA	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

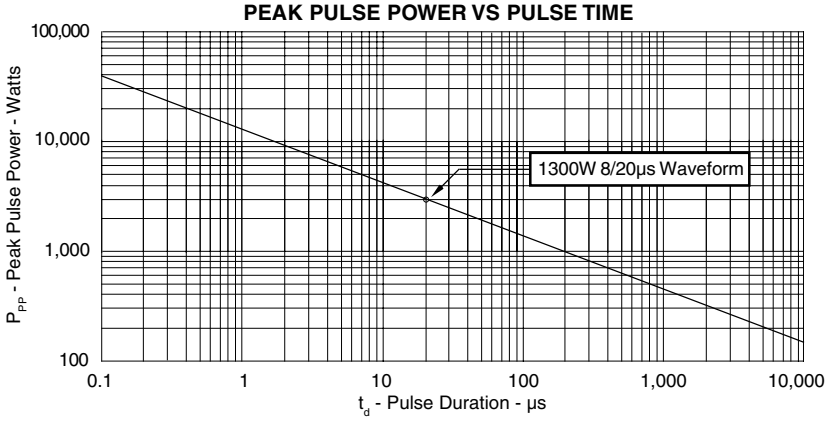


FIGURE 2
PULSE WAVE FORM

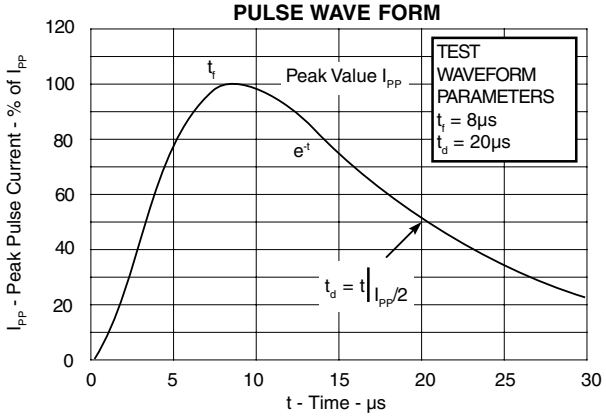
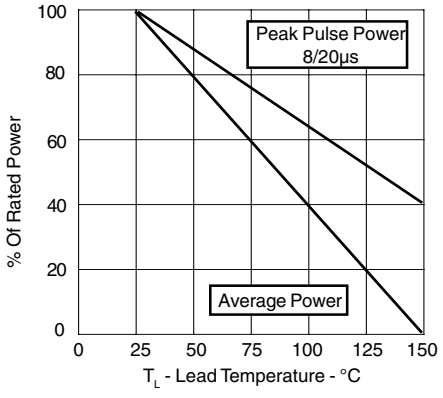
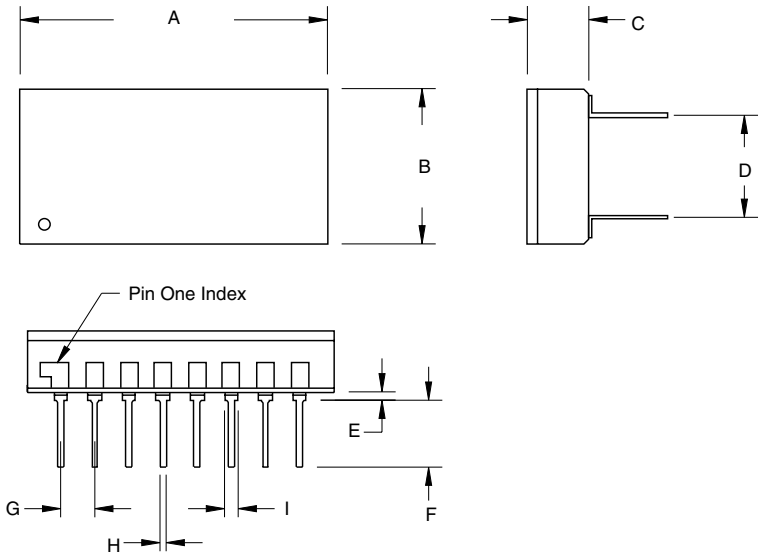


FIGURE 3
POWER DERATING CURVE

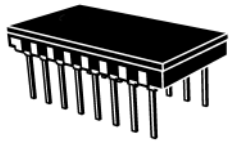


PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



16 PIN CERAMIC DIP



DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	22.72	23.48	0.895	0.925
B	11.43	12.19	0.450	0.480
C	-	4.87	-	0.192
D	7.36	7.84	0.310	0.290
E	-	-	0.025 REF	- REF
F	4.19	-	0.165	-
G	2.42	2.66	0.095	0.105
H	0.33	0.57	0.023	0.013
I	0.88	1.12	0.035	0.045

NOTES:

1. Dimensions are exclusive of metal burrs and solder protusions.
2. Package sealed with ceramic or metal lid.

Outline & Dimensions: Rev 0 - 3/02, 06029

ProTek Devices
2929 South Fair Lane, Tempe, AZ 85282
Tel: 602-431-8101 Fax: 602-431-2288
E-Mail: sales@protekdevices.com
Web Site: www.protekdevices.com