

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 μ s Level 2 (Line-Ground) & Level 3 (Line-Line)

FEATURES

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

MECHANICAL CHARACTERISTICS

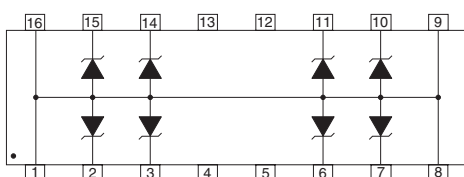
- ✓ Molded 16 Pin Dual-In-Line (DIP) Package
- ✓ Weight 1.2 grams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- ✓ Consult Factory for Leaded Device Availability
- ✓ Flammability Rating UL 94V-0
- ✓ Packaging: 50 Pieces Per Tube
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package



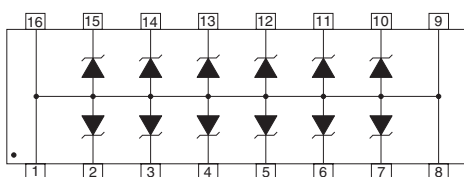
PIN CONFIGURATIONS

UNIDIRECTIONAL

DAxxN Series

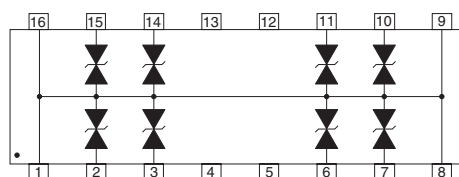


DAxxP Series

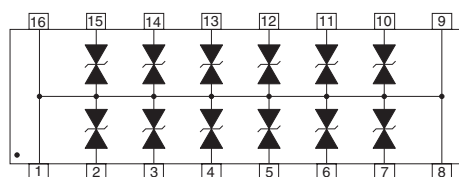


BIDIRECTIONAL

DAxxCN Series



DAxxCP Series



DA05N thru DA24CP

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_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Forward Surge Rating	I_F	10	Amps

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (See Note 1)	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_p = 10A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs V_C @ I_{PP}	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_b μA	MAXIMUM 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	53.0V @ 20A	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	53.0V @ 20A	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	53.0V @ 20A	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	53.0V @ 20A	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

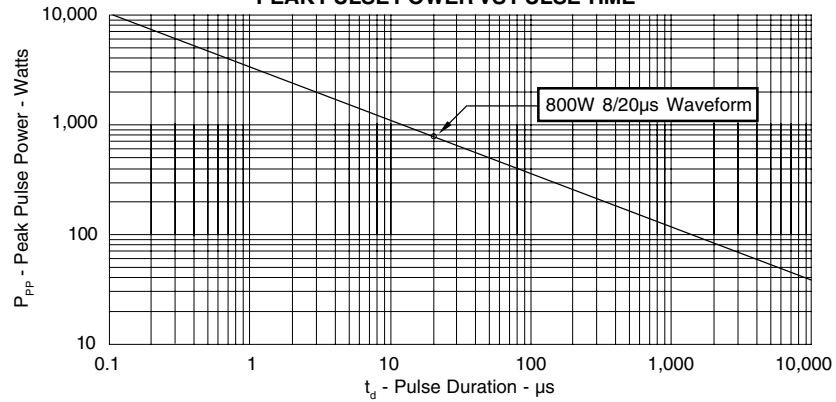


FIGURE 2
PULSE WAVE FORM

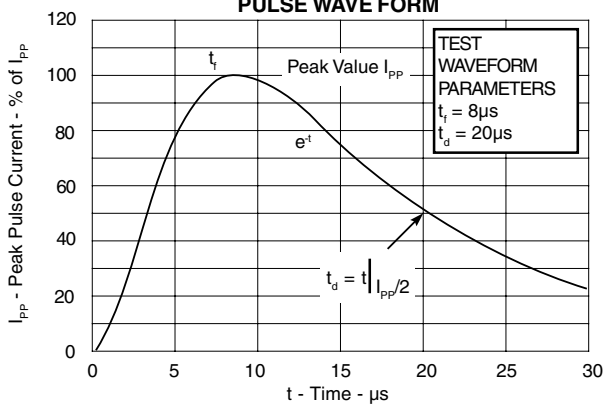
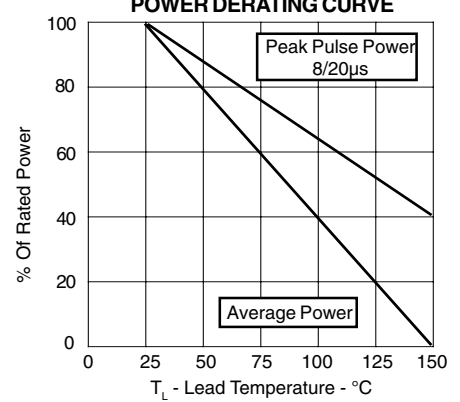


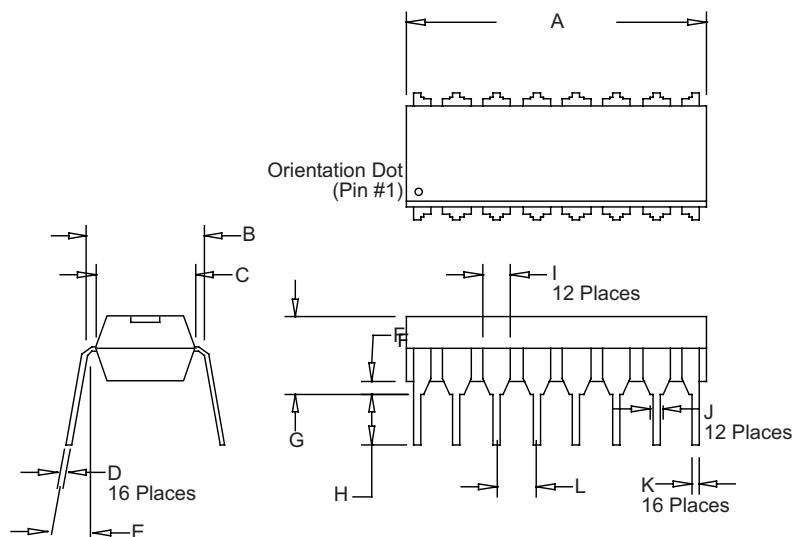
FIGURE 3
POWER DERATING CURVE



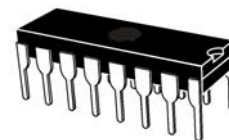
DA05N thru DA24CP

16 PIN DIP PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



16 PIN DIP



DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	-	19.8	-	0.780
B	7.37	7.87	0.290	0.310
C	6.10	6.60	0.240	0.260
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

NOTES:

1. Dimensions are exclusive of mold flash and metal burrs.

BULK ORDERING NOMENCLATURE:

1. No Suffix = Product Shipped in Tubes of 25 pcs per Tube.
2. Suffix - LF = Lead-Free, Pure-Tin Plating, i.e., DA24CP-LF.

Outline & Dimensions: Rev 1 - 11/01, 06003

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