

APPLICATIONS

- ✓ Relay Drives
- ✓ Motor (Start/Stop) Back EMF Protection
- ✓ Module Lightning Protection
- ✓ Secondary Lightning Protection for AC/DC

IEC COMPATIBILITY (EN61000-4)

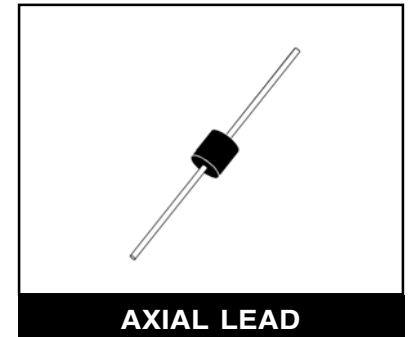
- ✓ 61000-4-5 (Surge): 48A, 8/20 μ s - L3 (Line-Gnd), L4 (Line-Line) & L1 (Power)

FEATURES

- ✓ 30,000 Watts Peak Pulse Power per Line ($t_p=10/1000\mu$ s)
- ✓ Unidirectional & Bidirectional Configurations
- ✓ Easy Mounting to Printed Circuit Board
- ✓ Available in Multiple Voltage Types Ranging From: 30V to 280V
- ✓ RoHS Compliant

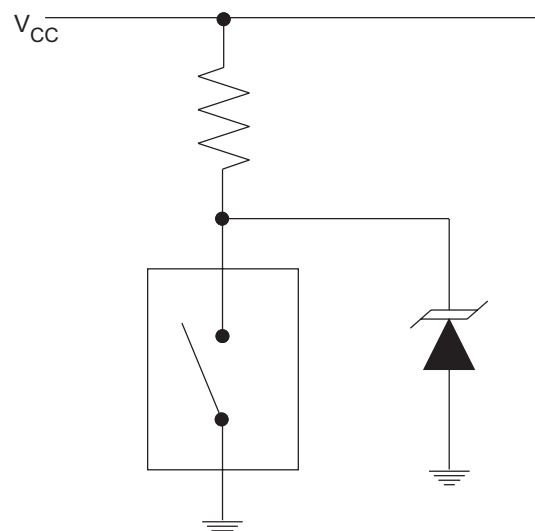
MECHANICAL CHARACTERISTICS

- ✓ Molded Case
- ✓ Weight 5 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
- ✓ Marking: Logo, Part Number & Date Code
- ✓ Positive Terminal Marked with Band - *Unidirectional Only*



APPLICATION

TYPICAL RELAY DRIVE PROTECTION



30KPA30A thru 30KPA280A

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 10/1000µs) - See Fig. 1	P _{PP}	30,000	Watts
Forward Surge Rating (1/20 seconds) - See Note 2	I _F	200	Amps
Steady State Power Dissipation	P _P	1.0	Watts
Storage Temperature	T _{STG}	-55 to 150	°C
Operating Temperature	T _L	-55 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (Notes 1 & 2)	RATED STAND-OFF VOLTAGE V _{WM} VOLTS	BREAKDOWN VOLTAGE		MAXIMUM LEAKAGE CURRENT @ V _{WM} I _D µA	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 10/1000µs V _C @ I _{PP}	TEMPERATURE COEFFICIENT OF V _(BR) qV _(BR) mV/°C
		MIN V _(BR) VOLTS	@ I _T mA			
30KPA30A	30.0	33.3	50	5000	55.2V @ 543.0A	34
30KPA36A	36.0	40.0	50	2000	61.8V @ 485.0A	41
30KPA43A	43.0	47.8	50	1000	73.0V @ 410.0A	50
30KPA48A	48.0	53.3	5	250	77.4V @ 388.0A	56
30KPA58A	58.0	64.4	5	20	92.4V @ 325.0A	68
30KPA64A	64.0	71.1	5	10	104.0V @ 294.0A	76
30KPA70A	70.0	77.8	5	10	109.0V @ 274.0A	83
30KPA75A	75.0	83.3	5	10	119.4V @ 251.0A	89
30KPA90A	90.0	100.0	5	10	147.0V @ 206.0A	109
30KPA160A	160.0	178.0	5	10	252.6V @ 119.0A	195
30KPA180A	180.0	200.0	5	10	291.0V @ 104.0A	230
30KPA220A	220.0	245.0	5	10	356.0V @ 84.0A	269
30KPA260A	260.0	289.0	5	10	416.0V @ 72.0A	317
30KPA280A	280.0	311.0	5	10	464.0V @ 65.0A	342

Note 1: Part numbers shown are unidirectional devices. Add a "CA" suffix to specify bidirectional devices, such as 30KPA30CA. *Devices shown are preferred voltages. Contact factory for additional voltages.*

Note 2: V_F = 15 Volts @ 200A, 8.3ms (1/2 Sine Wave) - *unidirectional devices only.*

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

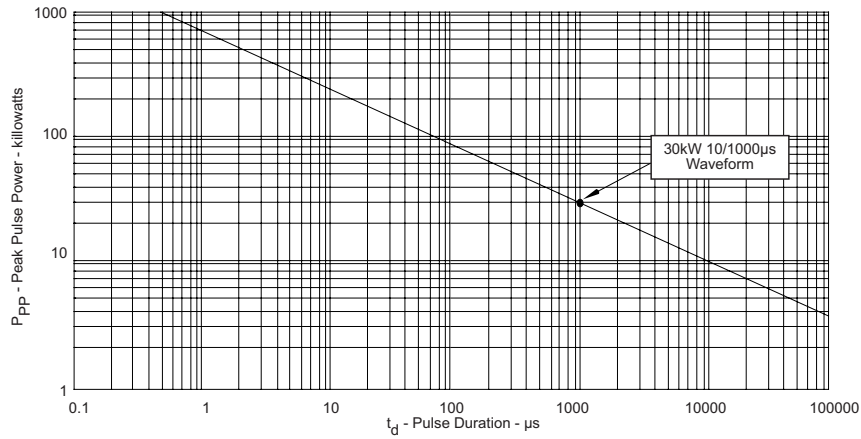


FIGURE 2
PULSE WAVE FORM

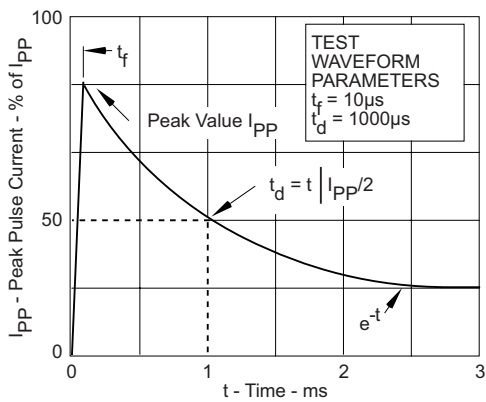
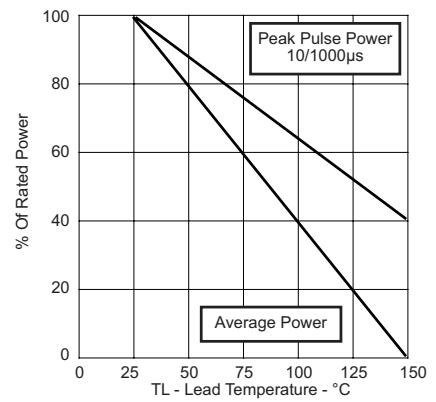
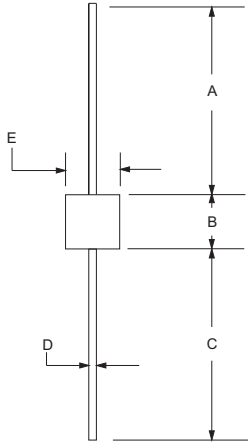
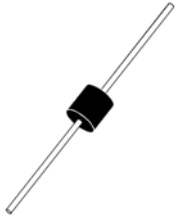


FIGURE 3
POWER DERATING CURVE



30KPA30A thru 30KPA280A

AXIAL LEAD PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE		AXIAL LEAD			
					
PACKAGE DIMENSIONS					
DIM	MILLIMETERS		INCHES		
	MIN	MAX	MIN	MAX	
A	24.5	-	1.00	-	
B	8.60	9.10	0.34	0.36	
C	24.5	-	1.00	-	
D	1.20 DIA	1.30 DIA	0.048 DIA	0.052 DIA	
E	8.60	9.10	0.34	0.36	
NOTES					
1. Dimensions are exclusive of mold flash and metal burrs. 2. Suffix -LF = Lead-Free, Pure-Tin Plating, i.e., 30KPA280A-LF.					
Outline & Dimensions: Rev 1 - 7/02, 06028					

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