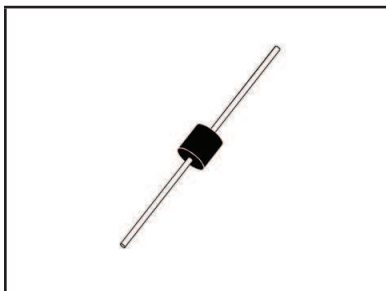


15kW POWER TVS COMPONENT**AXIAL LEAD PACKAGE****DESCRIPTION**

The PAM16AL30A is a discrete 15,000 Watt, silicon transient voltage suppressors(TVS) designed for use in automotive applications where large voltage transients can permanently damage voltage sensitive components and equipment.

The PAM16AL30A is available in 30 Volts with 5 percent and 10 percent tolerances. Both tolerances are referenced to the power supply output or operating voltage level. This device is compatible with IEC 61000-4-5 (Surge) requirements.

FEATURES

- Compatible with IEC 61000-4-5 (Surge): 48A, 8/20 μ s - L3(Line-Ground), L4(Line-Line) & L1 (Power)
- 15,000 Watts Peak Pulse Power per Line (tp = 10/1000 μ s)
- Unidirectional Configuration
- Easy Mounting to Printed Circuit Board
- tClamping (0V to V_{BR} Min.) < 1 x 10⁻¹² seconds theoretical (Unidirectional)
- RoHS Complaint (Exemption #7)

APPLICATIONS

- Automotive Applications

MECHANICAL CHARACTERISTICS

- Molded Case
- Approximate Weight: 5 grams
- Lead-Free Pure-Tin Plating (Annealed)
- Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- Flammability Rating UL 94V-0

CIRCUIT DIAGRAM

TYPICAL DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 10/1000μs) - See Figure 1	P _{PP}	15,000	Watts
Forward Surge Rating - 1/120 seconds - See Note 2	I _F	200	Amps
Steady State Power Dissipation	P _P	8.0	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 (Note 1)	MARKING CODE	RATED STAND-OFF VOLTAGE V _{WM} VOLTS	BREAKDOWN VOLTAGE		MAXIMUM LEAKAGE CURRENT @V _{WM} I _D μA	MAXIMUM CLAMPING VOLTAGE (Fig. 2) @ 10/1000μs V _C @ I _{PP}	TEMPERATURE COEFFICIENT OF V _(BR) qV _(BR) mV/°C
			MIN V _(BR) VOLTS	@ I _T mA			
PAM16AL30A	16AL30A	30.0	33.3	5	15	50.7V @ 296.0A	34

NOTES

1. V_F = 7.5 Volts @ 200A, 8.3ms(1/2 Sine Wave).

TYPICAL DEVICE CHARACTERISTICS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

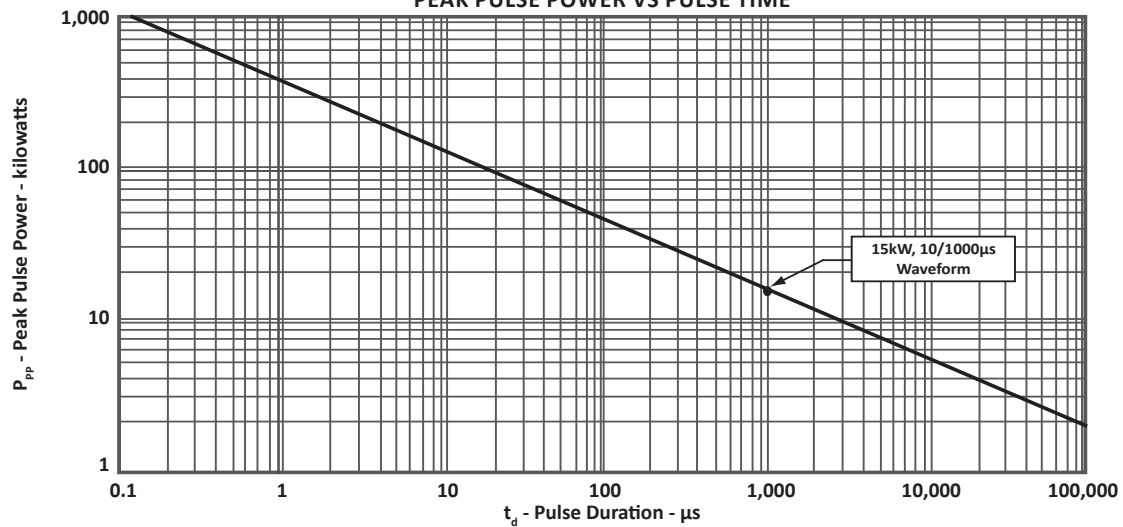


FIGURE 2
PULSE WAVEFORM

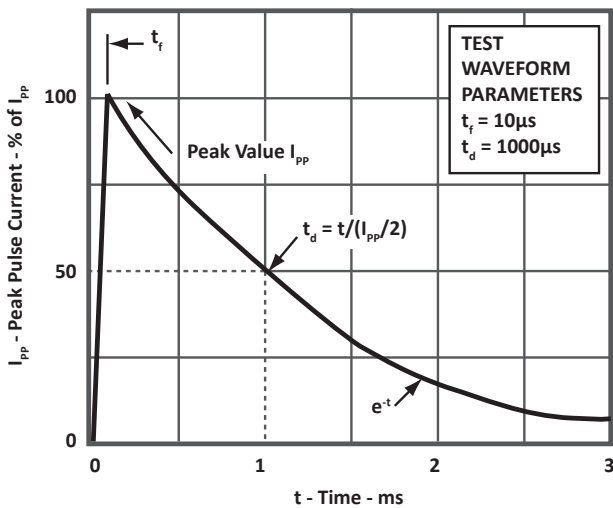
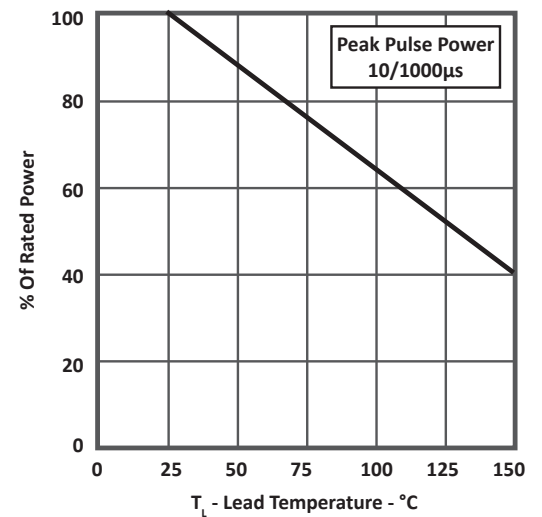
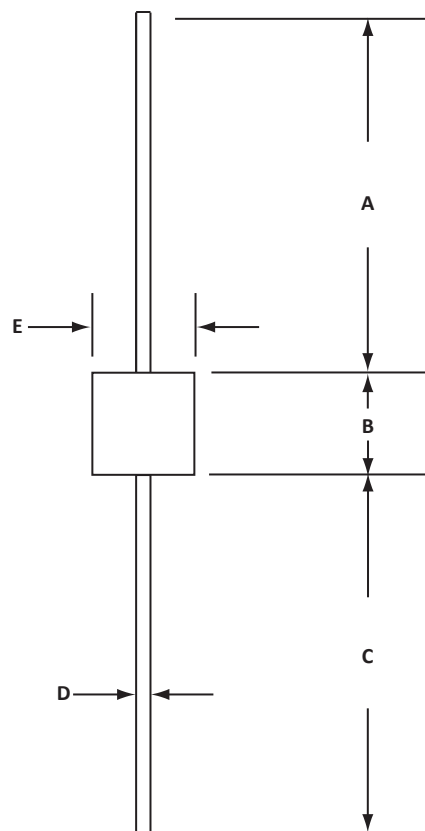



FIGURE 3
POWER DERATING CURVE



AXIAL LEAD PACKAGE INFORMATION

OUTLINE 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.				



ORDERING INFORMATION					
BASE PART NUMBER	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
PAM16AL30A-NQ	n/a	n/a	n/a	n/a	n/a
NOTES 1. Marking on Part - logo, part number and date.			MARKING DIAGRAM		
					
Suffix -NQ = This is a commercial grade device and is not qualified to the AEC-Q101 standard. Please contact customer service for more information.					

COMPANY INFORMATION

COMPANY PROFILE

In business more than 20 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers high performance interface and linear products. They include analog switches; multiplexers; LED drivers; LED wafer die for ESD protection; audio control ICs; RF and related high frequency products.

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