

HIGH POWER AIRCRAFT/ VEHICLE DC BUS VOLTAGE SUPPRESSOR**RTCA DO-160G COMPLIANT PRODUCT****DESCRIPTION**

The 704-15K36P is a 15 kilowatt silicon transient voltage suppressors (TVS) designed for use primarily in 28 Volt aircraft applications in accordance with MIL-STD-704. This device typically operates with a minimum source impedance of 0.25 Ohms.

This device has a peak pulse power rating of 15,000 Watts for a 1 ms waveshape and therefore can be used in applications where induced lightning on rural or remote transmission lines present a hazard to electronic circuitry. The 704-15K36P is designed for high current short peak pulse transient applications.

FEATURES

- RTCA DO-160G COMPLIANT PRODUCT
- Meets MIL-STD-704
- 15 kilowatts Peak Pulse Power per Line ($t_p = 10/1000\mu s$)
- Each Device 100% Tested
- 28 Volt Power Supply Protection

APPLICATIONS

- DC Power Supply Protection
- MIL-STD-704 Power Bus Protection

MECHANICAL CHARACTERISTICS

- Molded Plastic Case
- Approximate Weight: 38 grams
- Flammability Rating UL 94V-0
- Military Screening Available Upon Request for IAW MIL-PRF-19500

TYPICAL DEVICE CHARACTERISTICS

RTCA DO-160G COMPLIANT PRODUCT

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 10/1000) - See Figure 1	P_{PP}	15	kilowatts
Operating Temperature	T_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Steady State Power Dissipation @ 50°C	T_A	10.0	Watts
Forward Surge Rating @ 25°C 1/120 seconds	FI	300	Amps

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @10mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (Fig. 2) @ I_{PPM} V_C VOLTS	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	MAXIMUM PEAK PULSE CURRENT (Fig. 2) I_{PPM} AMPS	MAXIMUM FORWARD VOLTAGE @100A, 8.3ms V_F VOLTS DC
704-15K36P	31.5	36	53	100	300	3.0

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

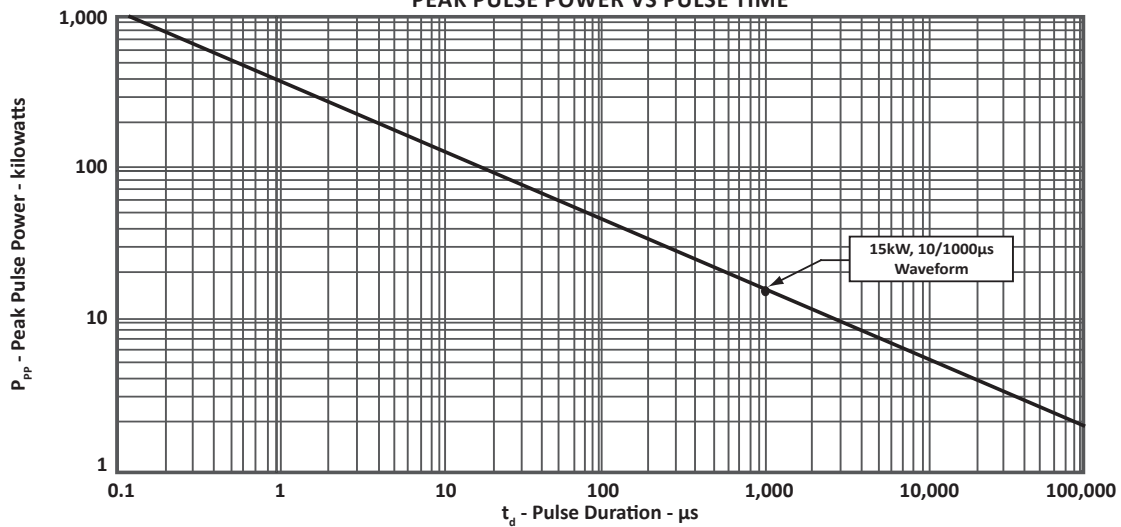


FIGURE 2
PULSE WAVEFORM

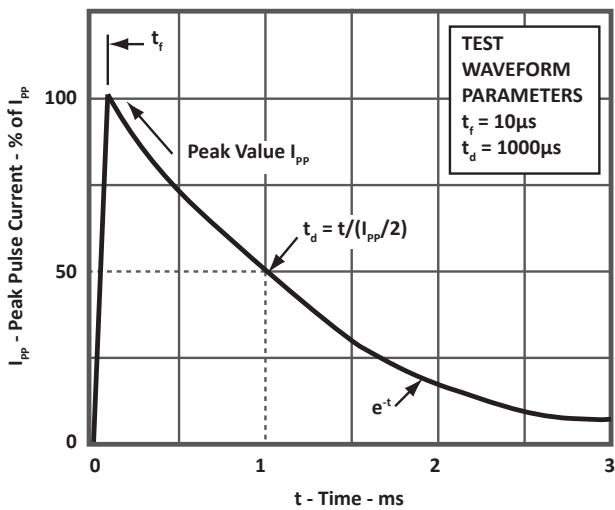
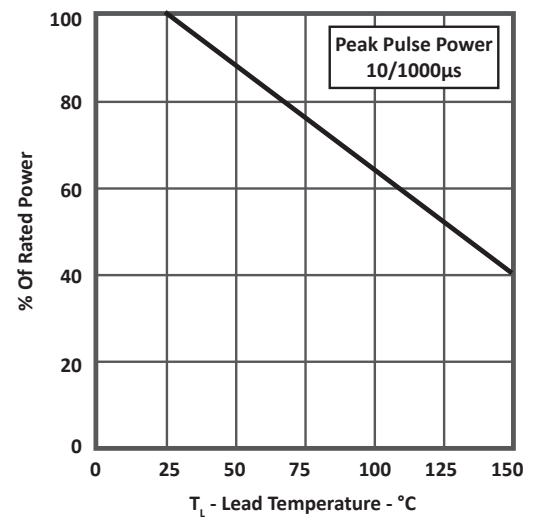


FIGURE 3
POWER DERATING CURVE



PACKAGE INFORMATION

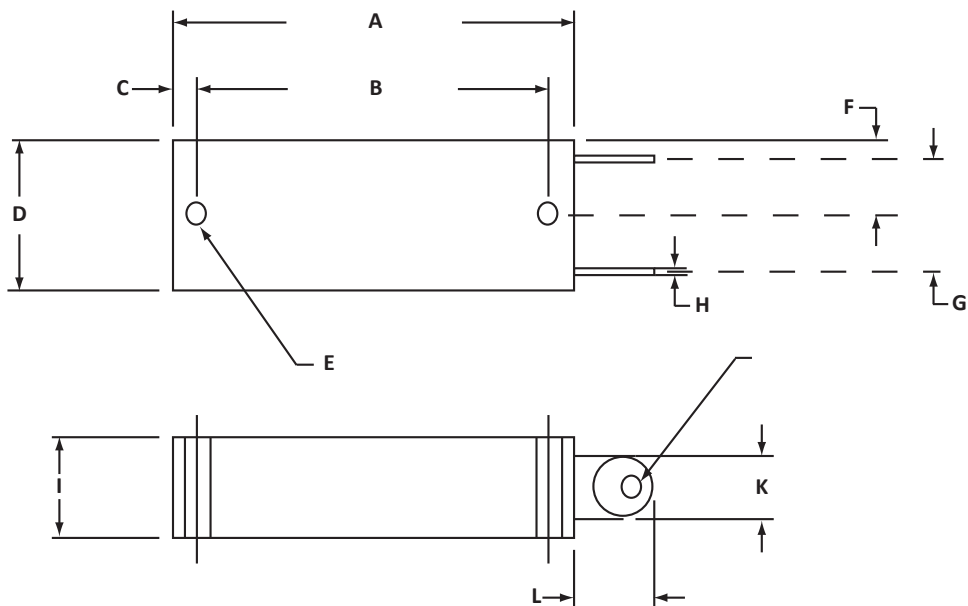
RTCA DO-160G COMPLIANT PRODUCT

704 OUTLINE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	49.28	51.56	1.97	2.03
B	43.92	44.96	1.73	1.77
C	2.79	3.56	0.11	0.14
D	18.29	19.81	0.72	0.78
E	3.18 DIA		0.125 DIA	
F	8.76	10.29	0.345	0.405
G	13.51	15.04	0.532	0.592
H	0.66	0.71	0.026	0.028
I	11.94	13.46	0.47	0.53
J	2.41	2.92	0.095	0.115
K	7.70	8.20	0.303	0.323
L	9.40	10.92	0.37	0.43

NOTES

- Dimension "E" is nominal.



ORDERING INFORMATION

BASE PART NUMBER

704-15K36P

NOTES

- Marking on Part - logo, date code, polarity dot (for positive terminal) and part number.

COMPANY INFORMATION**RTCA DO-160G COMPLIANT PRODUCT****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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