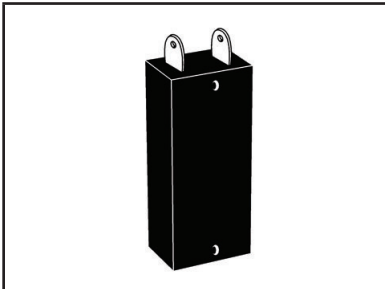




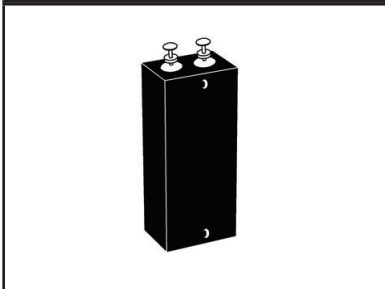
## PAL704-P15K36 & PAL704-P15K36T

### HIGH POWER AIRCRAFT/ VEHICLE DC BUS VOLTAGE SUPPRESSOR

### RTCA DO-160G COMPLIANT PRODUCT



**704 PACKAGE**



**704T PACKAGE**

#### DESCRIPTION

The PAL704-P15K36 and PAL704-P15K36T 15 kilowatt silicon transient voltage suppressors (TVS) designed for use primarily in 28 Volt aircraft applications in accordance with MIL-STD-704 and MIL-STD-19500. These assemblies typically operate with a minimum source impedance of 0.25 Ohms.

These devices have 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 PAL704-P15K36 is designed for high current short peak pulse transient applications, where as the PAL704-P15K36T is designed for extended peak pulse transients greater than 1 millisecond.

#### 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
- PAL704-P15K36 Approximate Weight: 30 grams
- PAL704-P15K36T Approximate Weight: 48 grams
- Flammability Rating UL 94V-0



**TYPICAL DEVICE CHARACTERISTICS**

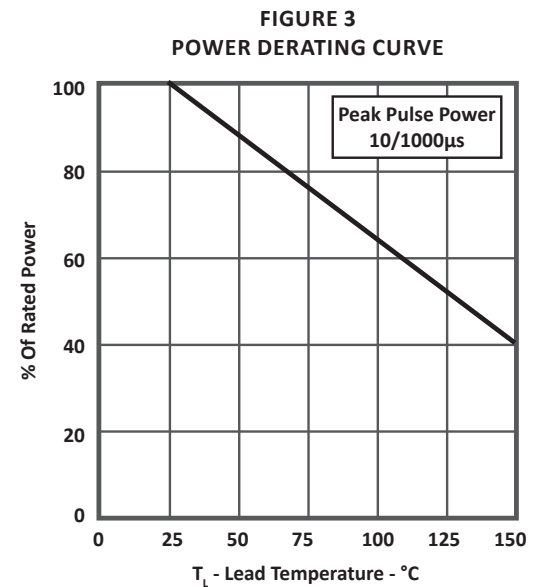
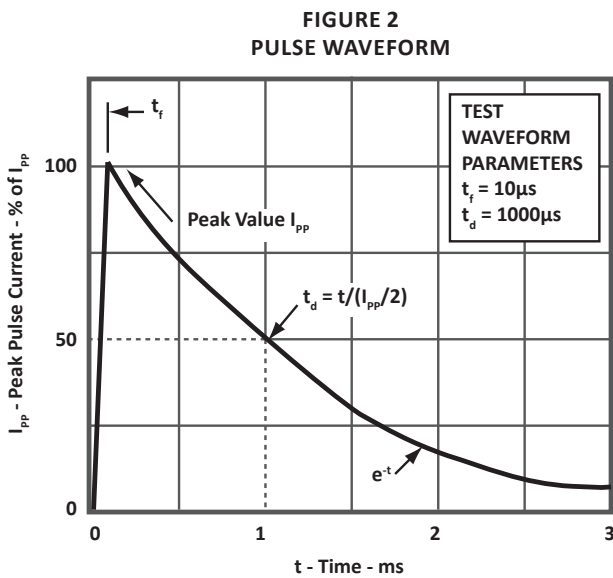
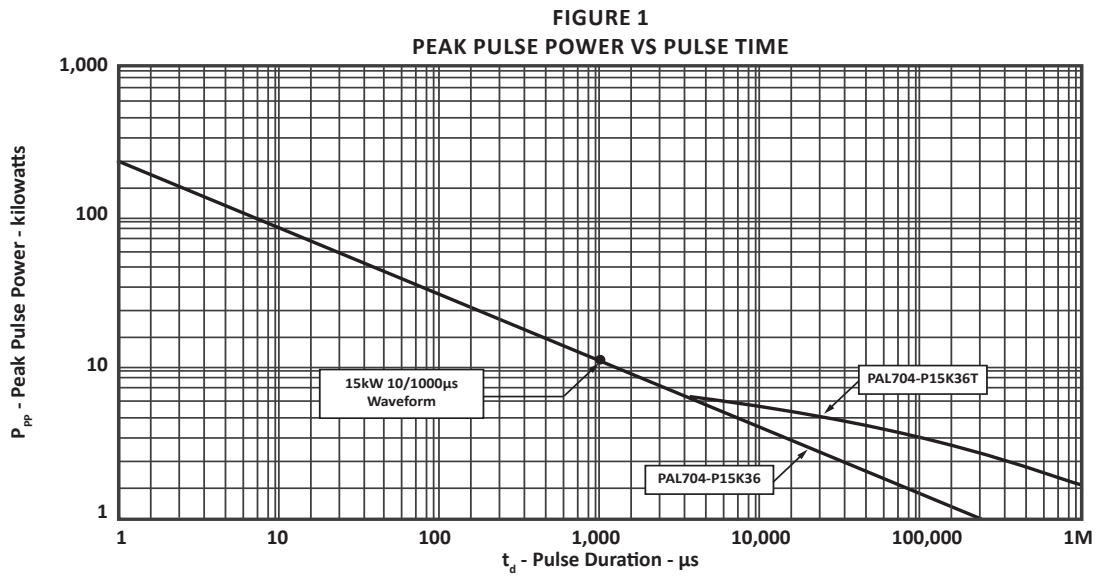
**RTCA DO-160G COMPLIANT PRODUCT**

<b>MAXIMUM RATINGS @ 25°C Unless Otherwise Specified</b>			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>VALUE</b>	<b>UNITS</b>
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

<b>ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified</b>						
<b>PART NUMBER</b>	<b>RATED STAND-OFF VOLTAGE</b>	<b>MINIMUM BREAKDOWN VOLTAGE</b>	<b>MAXIMUM CLAMPING VOLTAGE (Fig. 2)</b>	<b>MAXIMUM LEAKAGE CURRENT</b>	<b>MAXIMUM PEAK PULSE CURRENT (Fig. 2)</b>	<b>MAXIMUM FORWARD VOLTAGE</b>
	$V_{WM}$ VOLTS	@10mA $V_{(BR)}$ VOLTS	@ $I_{PPM}$ $V_C$ VOLTS	@ $V_{WM}$ $I_D$ μA	$I_{PPM}$ AMPS	@100A, 8.3ms $V_F$ VOLTS DC
PAL704-P15K36	31.5	36	53	10	300	3.0
PAL704-P15K36T	31.5	36	53	10	300	3.0

**TYPICAL DEVICE CHARACTERISTICS**

**RTCA DO-160G COMPLIANT PRODUCT**

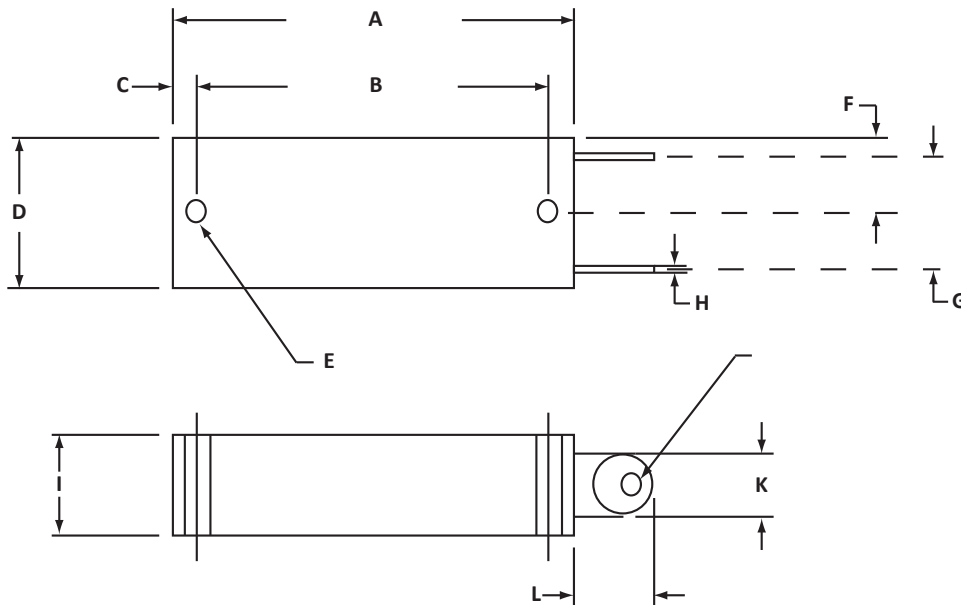


**PACKAGE INFORMATION**

**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**  
1. Dimension "E" is nominal.



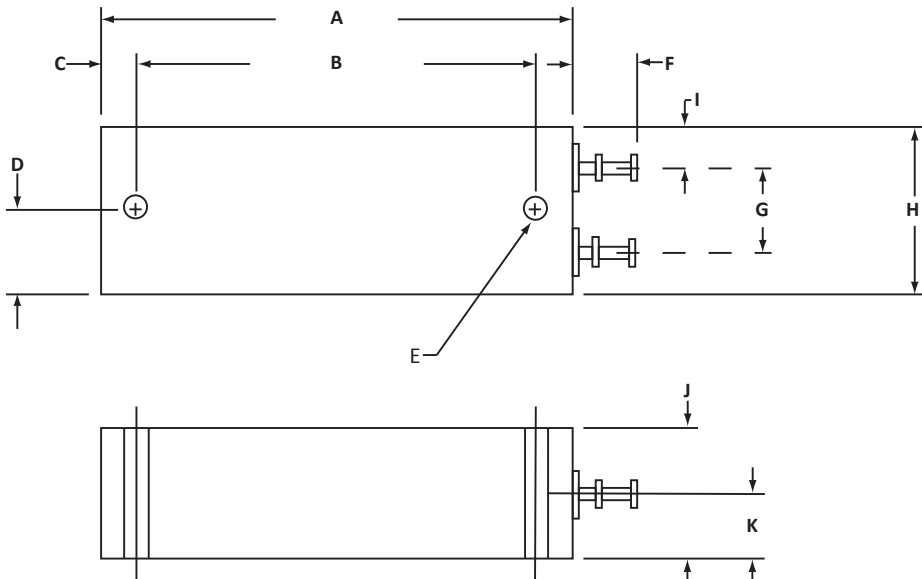
**Note:** Recommended torque value for mounting: less than 10 inch pounds

**PACKAGE INFORMATION**

**RTCA DO-160G COMPLIANT PRODUCT**

704T OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	62.74	64.26	2.47	2.53
B	53.34	54.48	2.10	2.145
C	4.32	5.33	0.17	0.21
D	10.54	12.07	0.415	0.475
E	3.18 DIA		0.125 DIA	
F	8.26	9.27	0.325	0.365
G	11.43		0.45	
H	21.84	23.37	0.86	0.92
I	5.59		0.22	
J	16.51	17.53	0.65	0.69
K	8.51		0.335	

**NOTES**  
1. Dimensions "E", "G", "I" and "K" are nominal.



**Note:** Recommended torque value for mounting: less than 10 inch pounds

ORDERING INFORMATION
<b>BASE PART NUMBER</b>
PAL704-P15K36
PAL704-P15K36T
<b>NOTES</b>
1. Marking on Part - logo, date code, polarity dot (for positive terminal) and part number.