

**POWER BUS VOLTAGE SUPPRESSOR****RTCA DO-160G COMPLIANT PRODUCT****APPLICATIONS**

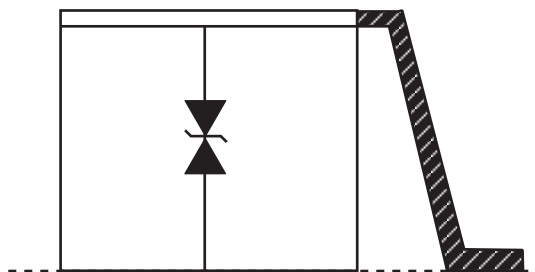
- Power Protection

**FEATURES**

- 350 kilowatts Peak Pulse Power per Line ( $t_p = 10/1000\mu s$ )
- 2250 kilowatts Peak Pulse Power per Line ( $t_p = 8/20\mu s$ )
- Suppresses Transients up to 900kW, Waveform 5A ( $t_p = 40/160\mu s$ ), RCTA/DO-160G Section 22
- Bidirectional - In Multiple Voltages
- 15kA ( $8/20\mu s$ ) (78V)
- RoHS Complaint (Exemption #7A - High Power Device)

**MECHANICAL CHARACTERISTICS**

- **RTCA DO-160G COMPLIANT PRODUCT**
- Lead-Free Silver Plating
- 32mm Tape and Reel Per EIA Standard 481
- Approximate Weight: 9.8 grams
- Flammability Rating UL 94V-0
- Co-planarity < 0.10mm

**CIRCUIT DIAGRAM**

## TYPICAL DEVICE CHARACTERISTICS

## RTCA DO-160G COMPLIANT PRODUCT

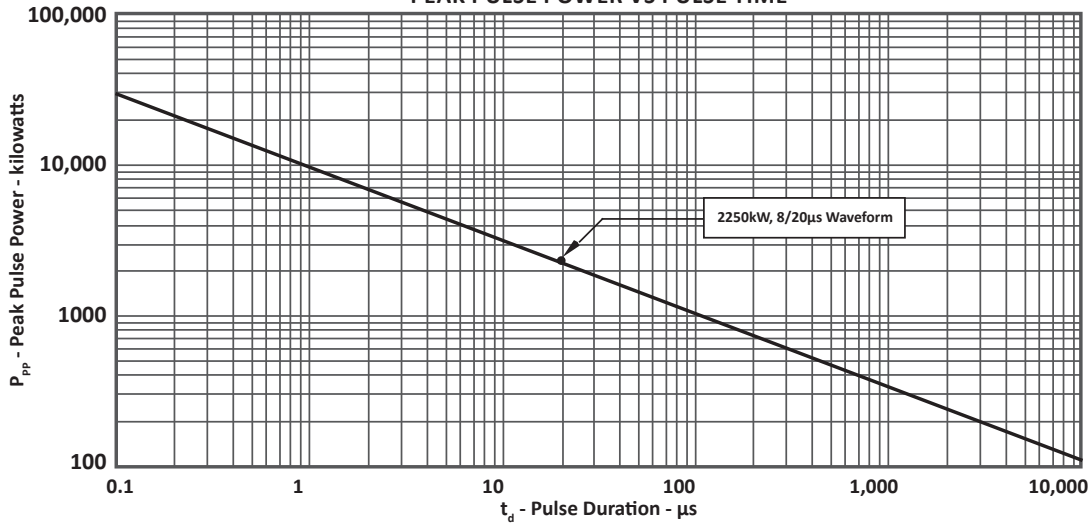
## MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 8/20μs)	$P_{PP}$	2250	kilowatts
Storage Temperature	$T_{STG}$	-55 to +150	°C
Operating Temperature	$T_L$	-40 to +125	°C
Peak Pulse Current (tp=8/20μs) (78V Device)	$I_{PP\ MAX}$	15	kA

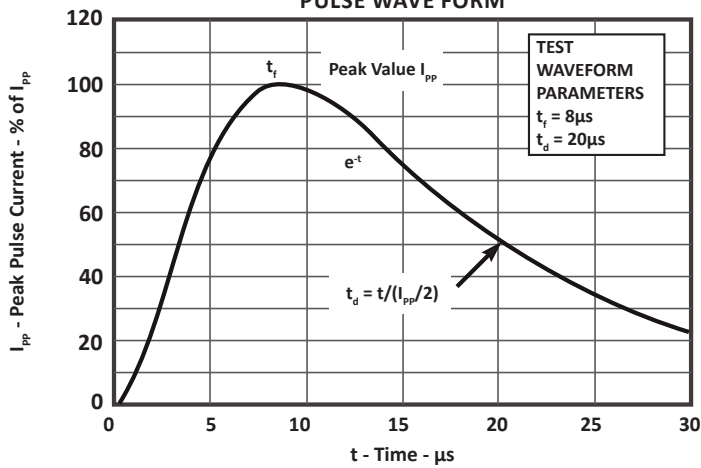
## ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	MARKING CODE	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE  @5mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (Fig. 2)  @ $I_{PP}$ $V_C$ VOLTS	MAXIMUM LEAKAGE CURRENT  @ $V_{WM}$ $I_D$ μA	PEAK PULSE CURRENT (Fig. 2) (By Design)  $I_{PPM}$ kAMPS
2700SM28CAN	28CA	28	31	45.5	800	49
2700SM78CAN	78CA	78	86	150	10	15
2700SM86CAN	86CA	86	94	163	10	13.7

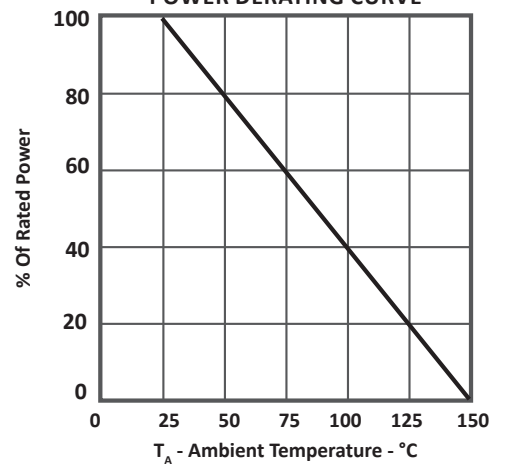
**FIGURE 1**  
PEAK PULSE POWER VS PULSE TIME



**FIGURE 2**  
PULSE WAVE FORM



**FIGURE 3**  
POWER DERATING CURVE



## PACKAGE INFORMATION

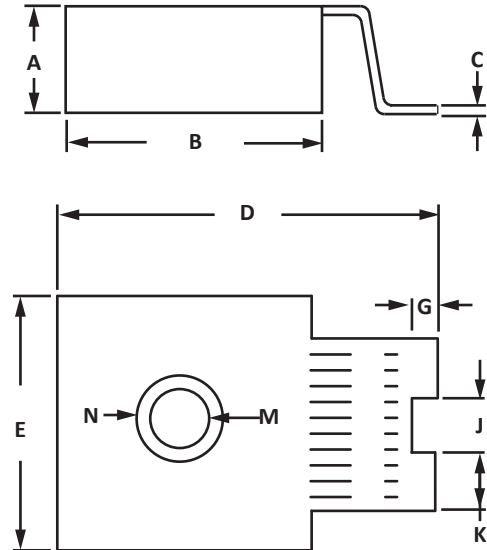
## RTCA DO-160G COMPLIANT PRODUCT

## OUTLINE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	7.80	8.20	0.307	0.323
B	12.75	13.25	0.502	0.522
C	0.48	0.52	0.019	0.021
D	18.75	19.50	0.738	0.768
E	12.75	13.25	0.502	0.522
G	1.23	1.31	0.048	0.052
J	2.75	2.85	0.108	0.112
K	3.90	3.98	0.154	0.156
M	1.48	1.56	0.058	0.062
N	2.49	2.59	0.098	0.102

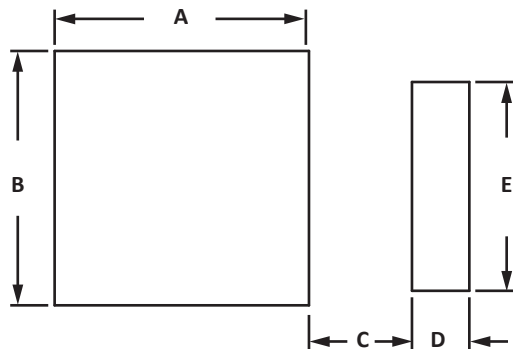
## NOTES

1. Controlling dimensions in millimeters.



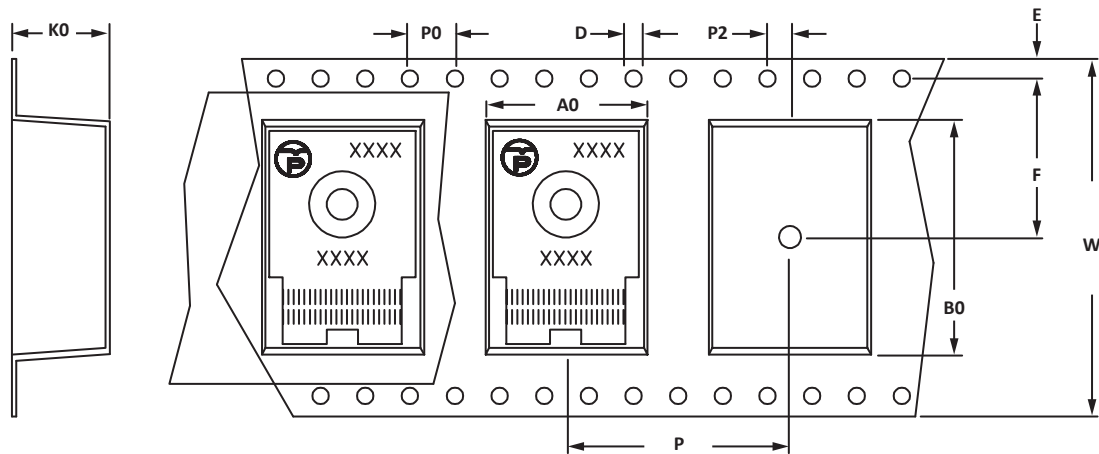
## PAD LAYOUT

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	13.45	13.72	0.530	0.540
B	13.45	13.72	0.530	0.540
C	2.44	2.59	0.096	0.102
D	3.50	3.62	0.138	0.142
E	11.16	11.43	0.440	0.450



## TAPE AND REEL

## RTCA DO-160G COMPLIANT PRODUCT



## SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P
330mm (13")	32mm	13.89± 0.01	19.81 ± 0.01	8.38 ± 0.01	1.50 ± 0.01	1.75 ± 0.01	14.20 ± 0.01	32.00 ± 0.01	4.00 ± 0.01	2.00 ± 0.01	20.00 ± 0.01

## NOTES

1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Suffix - T13 = 13" Reel - 250 pieces per 32mm tape.
4. Marking on Part - marking code, logo and date code.

## ORDERING INFORMATION

BASE PART NUMBER (xx = Voltage)	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
2700SM7xxCAN	N/A	-T13	250	13"	N/A

This device is only available in a Lead-Free configuration.

**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 LED wafer die for ESD protection and related high frequency products.

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