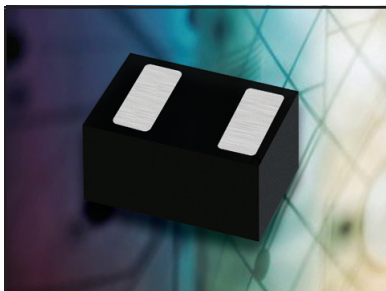


**ULTRA LOW CAPACITANCE TVS ARRAY****DFN-0603-2L PACKAGE****DESCRIPTION**

The PLR03331-0201 is an ultra low capacitance TVS array that is designed to protect components from damage or upset due to electrostatic discharge (ESD). The device is offered in a bidirectional configuration and is available in two lead DFN-0603 package. The PLR03331-0201 features a large cross sectional area junction for conducting high transient currents, fast response time and low operating voltage. This device meets the IEC 61000-4-2 and IEC 61000-4 requirements.

**FEATURES**

- Compatible with IEC 61000-4-2 (ESD): Air  $\pm 15\text{kV}$ , Contact  $\pm 8\text{kV}$
- Compatible with IEC 61000-4-4 (EFT): 40A, 5/50ns
- 60 Watts Peak Pulse Power per Line ( $t_p = 8/20\mu\text{s}$ )
- Bidirectional Configuration
- Protects 1 Data Line
- Low Clamping Voltage
- Easy Placement for Manufacturing
- Replacement for MLV (0201)
- Ultra Low Capacitance: 0.35pF (Typical)
- Fast Response Time:  $< 1\text{ns}$
- RoHS Compliant
- REACH Compliant

**APPLICATIONS**

- Cellular Phones
- Portable Devices
- Digital Cameras
- Power Supplies

**MECHANICAL CHARACTERISTICS**

- Molded DFN-0603-2L Package
- Approximate Weight: 0.8 milligrams
- Lead-Free Plating
- Solder Reflow Temperature - 260-270°C
- 8mm Tape and Reel Per EIA Standard 481
- Meets MSL 1 Requirements
- Flammability Rating UL 94V-0

**PIN CONFIGURATION**

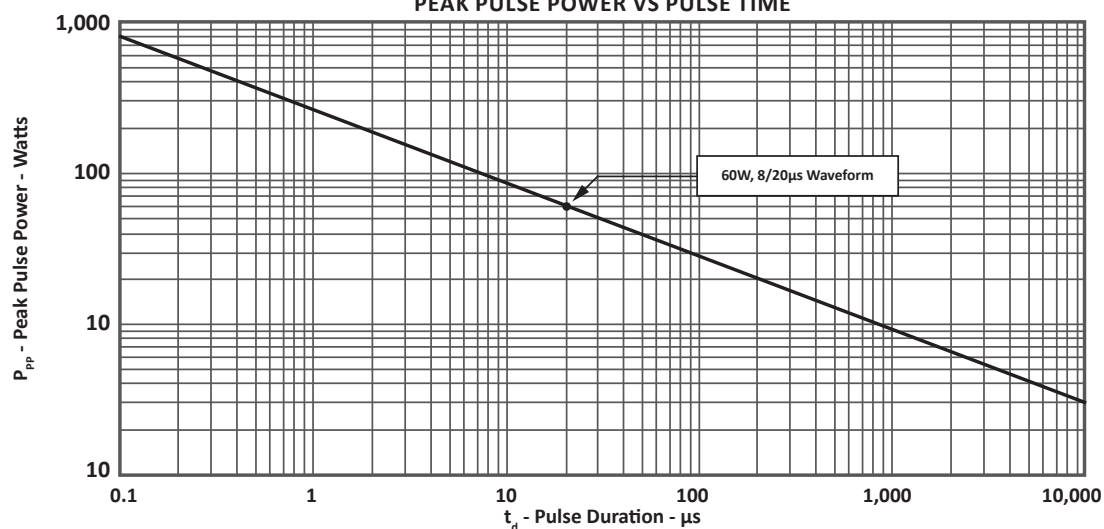
**TYPICAL DEVICE CHARACTERISTICS**
**MAXIMUM RATINGS @ 25°C Unless Otherwise Specified**

PARAMETER	SYMBOL	VALUE	UNITS
Storage Temperature	$T_{STG}$	-55 to 150	°C
Junction Temperature	$T_J$	-55 to 125	°C
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	$P_{PP}$	60	Watts
Peak Pulse Current	$I_{PP}$	10	Amps

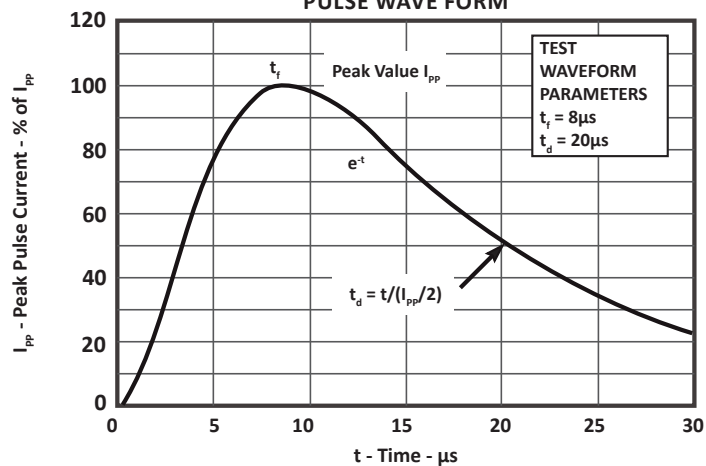
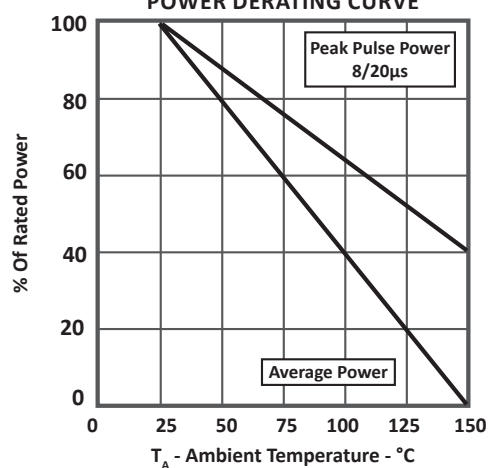
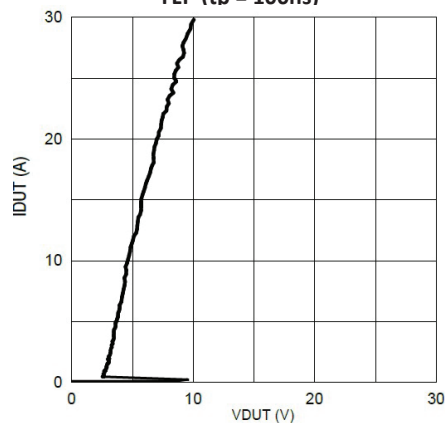
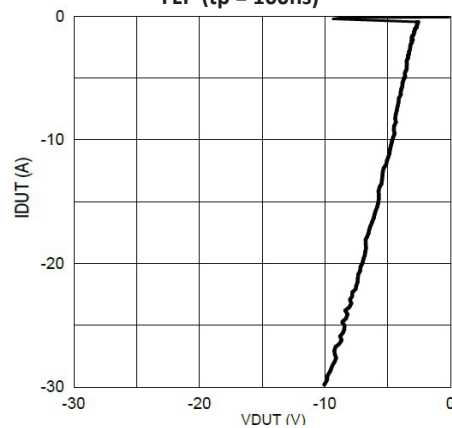
**ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified**

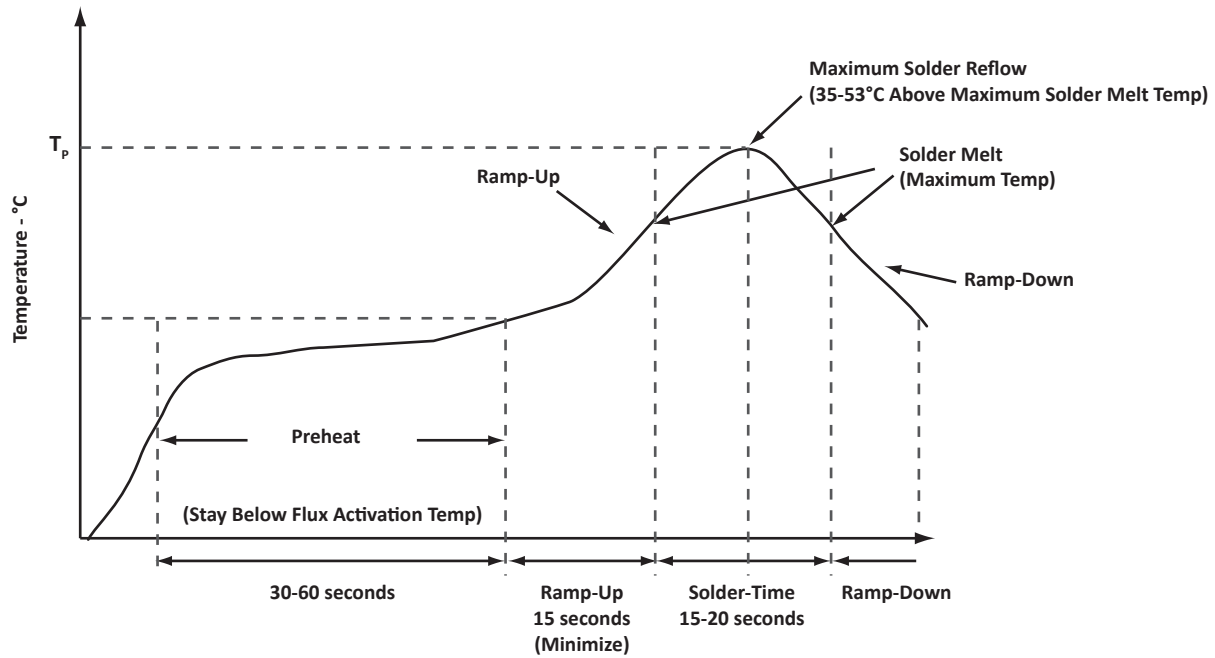
PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE  @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (Fig. 2)  @ $I_P = 10A$ $V_C$ VOLTS	MAXIMUM LEAKAGE CURRENT  @ 3.3V $I_D$ $\mu A$	TYPICAL CAPACITANCE  @ 0V, 1MHz C pF
PLR03331-0201	5	3.3	5.5	9.0	0.05	0.35

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



## TYPICAL DEVICE CHARACTERISTICS

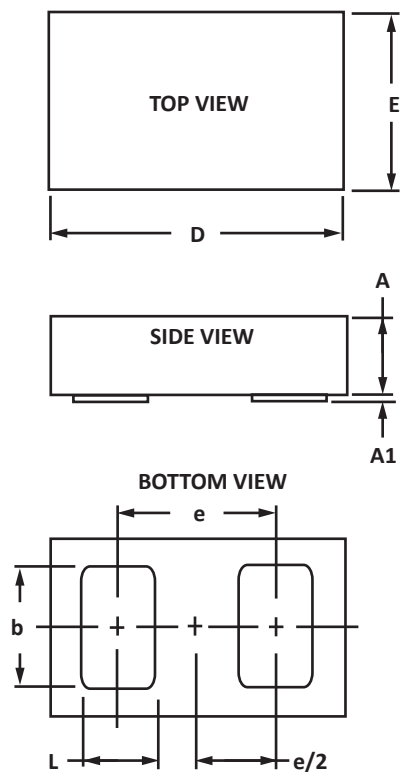
**FIGURE 2**  
**PULSE WAVE FORM**

**FIGURE 3**  
**POWER DERATING CURVE**

**FIGURE 4**  
**TLP (tp = 100ns)**

**FIGURE 5**  
**TLP (tp = 100ns)**


**PACKAGE INFORMATION**

## PACKAGE INFORMATION

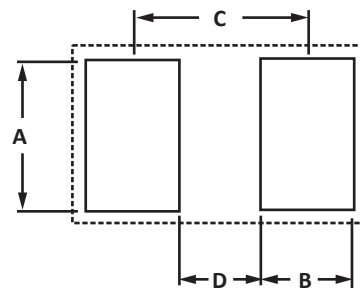
### OUTLINE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.185	0.227	0.007	0.009
A1	0.000	0.050	0.000	0.002
b	0.200	0.240	0.008	0.009
D	0.590	0.640	0.023	0.025
E	0.290	0.340	0.011	0.013
e	0.355 BSC		0.014	
L	0.140	0.180	0.006	0.007

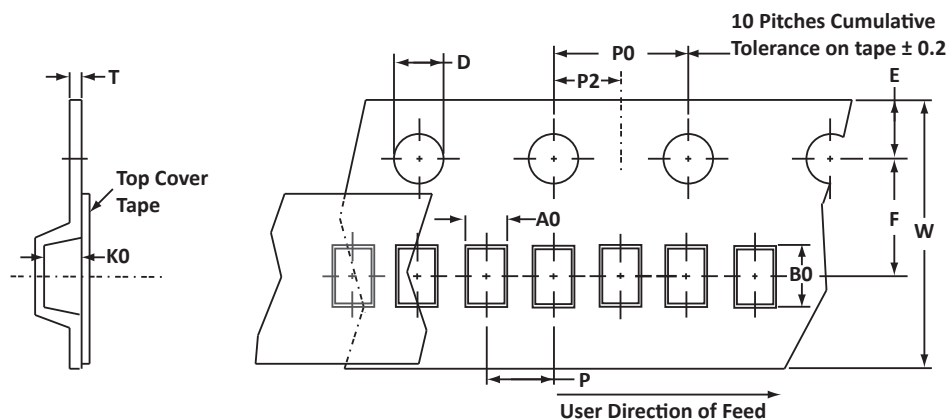


### PAD LAYOUT DIMENSIONS

DIM	MILLIMETERS	INCHES
A	0.65	0.025
B	0.32	0.013
C	0.25	0.010
D	0.15	0.006



## TAPE AND REEL



## SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	$0.45 \pm 0.10$	$0.76 \pm 0.010$	$0.25 \pm 0.010$	$1.55 \pm 0.10$	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$8.00 \pm 0.30$	$4.00 \pm 0.10$	$2.00 \pm 0.05$	$2.00 \pm 0.05$	0.25

## NOTES

1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Marking on Part - marking code (see page 2).

## ORDERING INFORMATION

BASE PART NUMBER	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
PLR03331-0201	N/A	-T710	10,000	7"	N/A

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

## COMPANY INFORMATION

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### COMPANY PROFILE

In business more than 30 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection that include Transient Voltage Suppressor (TVS) Arrays, Steering Diode Array Hybrids, High-power Components and Modules, as well as Steering Diodes, EMI Filter/TVS Arrays and Thyristor Surge Suppressors. These components deliver circuit protection in electronic systems from numerous overvoltage events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices is an ISO 9001 certified company.

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