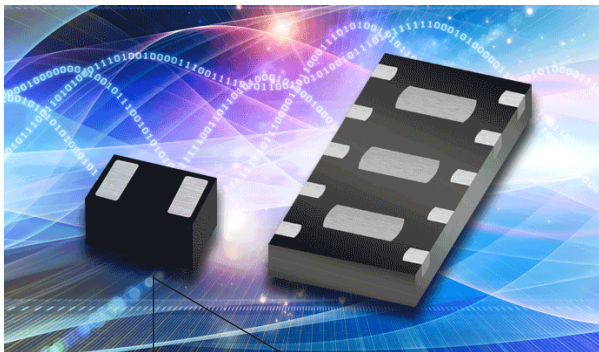
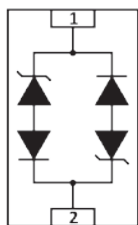


# CIRCUIT PROTECTION – ULTRA LOW CAPACITANCE TVS ARRAY



GBLC03CIDNHP  
DFN-2 PACKAGE



GBLC03CIDNHP  
PIN-CONFIGURATION

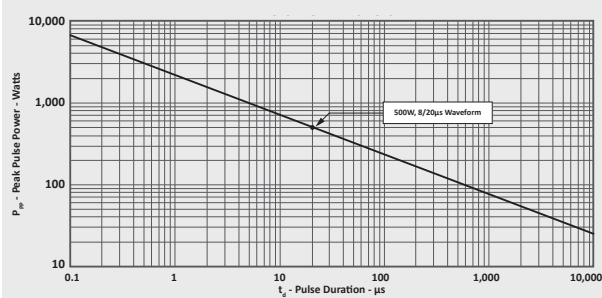
ProTek Devices has introduced two new circuit protection components that shield a variety of networking, mobile and other computing applications from the destructive effects of electrical transients.

The **GBLC03CIDNHP** is an ultra-low capacitance (0.6pF typical) transient voltage suppressor array (TVS array) available in a bidirectional configuration. It is ideal for Ethernet 10/100/1000 Base T, smartphones and other handheld wireless systems, and USB interfaces.

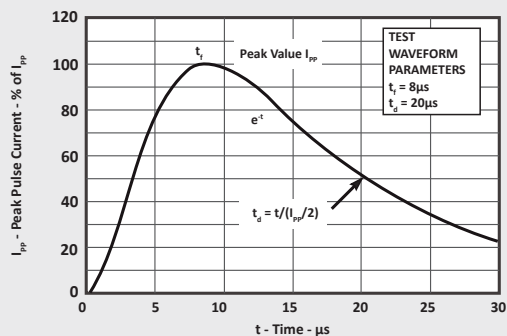
The GBLC03CIDNHP is rated at 500 Watts for an 8/20 micro second waveshape. It meets various IEC standards requirements. This includes 61000-4-2 (ESD): air - 15kV, contact - 8k, exceeding level 4, and handles 10kV contact and 25kV air discharge. It also includes 61000-4-4 (EFT): 40A - 5/50ns and IEC 61000-4-5 (surge). The GBLC03CIDNHP also offers low leakage current and is an ideal replacement for MLV (0805) devices. It protects one power or I/O port and provides ESD protection of > 25kV as well as a low clamping voltage. The GBLC03CIDNHP is provided in a molded JEDEC DFN-2 package with an approximate weight of only 0.8 milligrams. It features lead-free pure-tin plating (annealed) and is suitable for solder reflow temperature of 260 to 270°C. The component also meets UL 94V-0.

The GBLC03CIDNHP is RoHS and REACH compliant.

## PEAK PULSE POWER VS. PULSE DURATION



## PULSE WAVE FORM

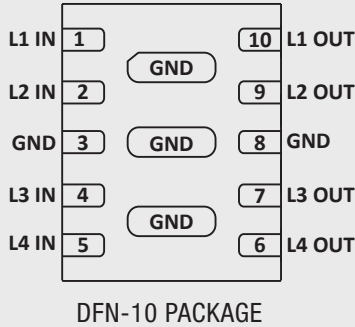


## ELECTRICAL CHARACTERISTICS PER LINE

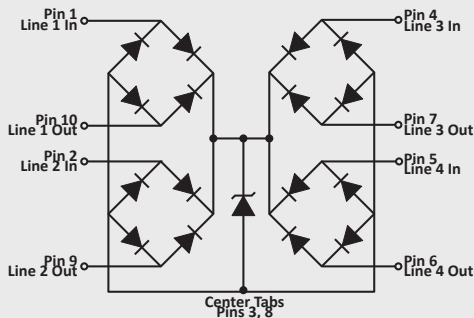
PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE $V_{WM}$ [V]	MIN. BREAKDOWN VOLT. $V_{BR}$ [V] @ 1mA	MAX. CLAMPING VOLT. [V] @ 8/20µs, $I_p = 1A$	MAX. CLAMPING VOLT. [V] @ 8/20µs @ $I_{pp}$	MAX. LEAKAGE CURR. $I_b$ [µA] @ $V_{WM}$	TYP. CAPACITANCE [pF] @ 0V, 1MHz
GBLC03CIDNHP	CC	3.0	4.0	6.0	24 @ 20.0A	5	0.6

# ULTRA LOW CAPACITANCE STEERING DIODE – SRV25-4LC

## PIN CONFIGURATION SRV25-4LC



## CIRCUIT DIAGRAM SRV25-4LC



The SRV25-4LC is a port protection array that also boasts ultra-low capacitance (1.0pF typical).

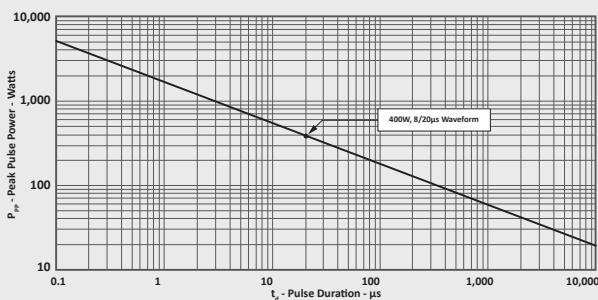
The SRV25-4LC is ideal for ESD protection in Gigabit Ethernet, smartphones and other similar portable electronics, video card interfaces, USB 2.0 interfaces, and DVI interfaces.

It can clamp the effects of electrical fast transients on the power bus. The SRV25-4LC combines eight low-capacitance steering diodes for up to four individual data or transmission lines and one TVS diode for power bus protection.

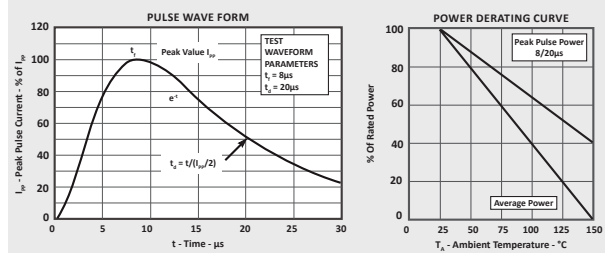
It meets the same IEC standards as the GBLC03CIDNHP. The SRV25-4LC offers 400 Watts peak pulse power per line (typical = 8/20 micro seconds). ESD protection is > 25 kilovolts and it also provides a low clamping voltage.

The SRV25-4LC is offered in a molded JEDEC DFN-10 package, which minimizes lead inductance to prevent overshoot voltages during high ESD current events. Its approximate weight is just 7 milligrams. It features lead-free pure-tin plating (annealed) and a solder reflow temperature of (pure-tin - Sn, 100) 260-270 degrees Celsius. The component also meets UL 94V-0.

## PEAK PULSE POWER VS. PULSE DURATION



## PULSE WAVE FORM / POWER DERATING CURVE



## ELECTRICAL CHARACTERISTICS PER LINE

PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE $V_{WM}$ [V]	MIN. BREAKDOWN VOLTAGE $V_{BR}$ [V] @ 1mA	MAX. CLAMPING VOLT. [V] @ 8/20µs, $I_p$				MAX. LEAKAGE CURR. $I_b$ @ $V_{WM}$	CAPACITANCE [pF] @ 0V, 1MHz		
				$I_p=1A$	$I_p=10A$	$I_p=15A$	$I_p=20A$		typ.	max.	typ. I/O to I/O
SRV25-4LC	S4LC	2.5 *1	3.0 *1	4.5 *1	7.4 *1	10.0 *1	20.0 *2	0.1 µA	1.0	2.0	0.5

\*1- Measured from I/O pin to ground

\*2- Measured with I/O pins tied together