

**6 Pin SOIC Package**

***SIDACtor***<sup>®</sup>  
Solid State Overvoltage Protection

**Preliminary  
Multi-port  
Line Protector  
Pxxx4U\_**

## **Features**

- Integrated multi-chip packaging equivalent to four discrete components
- Reduced component count for improved placement costs and PCB utilization
- 500A surge current rating meets all GR1089 and FCC Part 68 surge immunity requirements
- Meets UL and IEC 60950 creepage and clearance requirements
- Utilizes patented ion implant technology (US Patent 5,479,031) for peerless performance
- Glass passivated for superior reliability

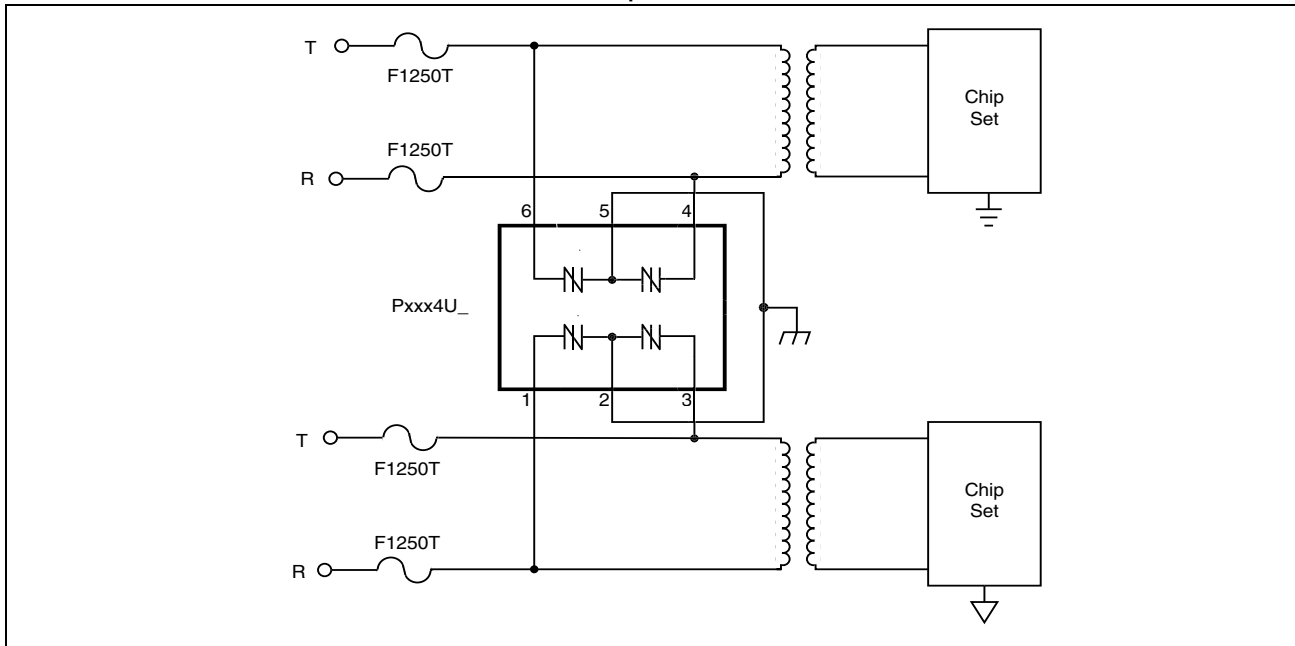


## Description

Teccor's new multi-port line protector is designed to offer Teccor customers an integrated multi-chip solution for protecting multiple twisted pair from over voltage conditions. Based on a 6-pin SOIC package, Teccor's multi-port line protector is equivalent to four discrete DO-214AA or two TO-220 packages. Available in surge current ratings of up to 500A, the multi-port line protector is ideal for densely populated, high-speed line cards that can not afford PCB inefficiencies or the utilization of series power resistors.

Available in standard or custom voltage configurations, Teccor's multi-port line protector can help provide a simple solution for complex regulatory requirements.

Example Circuit



## Electrical Specifications

### Pxxx4U\_

Part Number	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> $\mu$ Amps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps	C <sub>O</sub> pF
P0304U_	25	40	5	5	800	1	50	110
P0644U_	58	77	5	5	800	1	120	50
P0724U_	65	95	5	5	800	1	120	50
P1104U_	90	130	5	5	800	1	120	40
P1304U_	120	160	5	5	800	1	120	40
P1504U_	140	180	5	5	800	1	120	40
P1804U_	170	220	5	5	800	1	120	40
P2304U_	190	250	5	5	800	1	120	30
P2604U_	220	300	5	5	800	1	120	30
P3104U_	275	350	5	5	800	1	120	30
P3504U_	320	400	5	5	800	1	120	30

#### Notes:

- V<sub>DRM</sub> and V<sub>S</sub> ratings are from pins 1-2, 3-2 and 4-5, 6-5; pins 1-3 and 4-6 are two times the listed value
- V<sub>DRM</sub> is measured at I<sub>DRM</sub> and V<sub>S</sub> is measured at 100V/ $\mu$ s
- Isolation between opposing pins (e.g. 1 to 6) is  $\geq 1600V_{RMS}$
- Special voltage ratings (V<sub>S</sub> & V<sub>DRM</sub>), configurations, and holding currents (I<sub>H</sub>) are available upon request
- Thermal resistance: junction to ambient is 85°C/W
- C<sub>O</sub> is for A and B rated components. C<sub>O</sub> for C rated components is 2x listed value

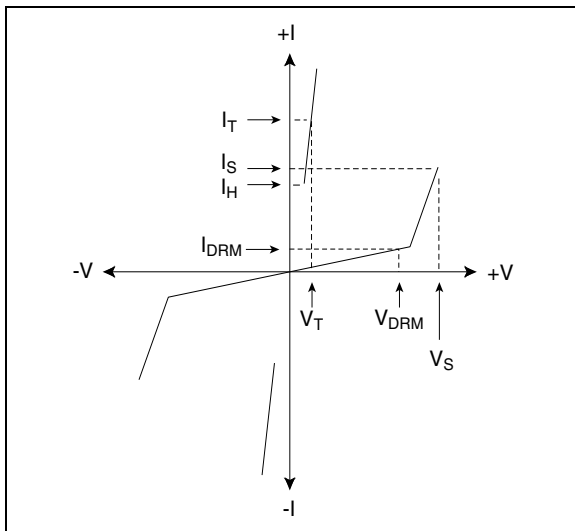
## Surge Ratings

Series	$I_{PP}$ 2x10 $\mu$ s Amps	$I_{PP}$ 8x20 $\mu$ s Amps	$I_{PP}$ 10x160 $\mu$ s Amps	$I_{PP}$ 10x560 $\mu$ s Amps	$I_{PP}$ 10x1000 $\mu$ s Amps	$I_{TSM}$ 60Hz Amps	di/dt Amps/ $\mu$ s
A	200	150	100	60	50	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500

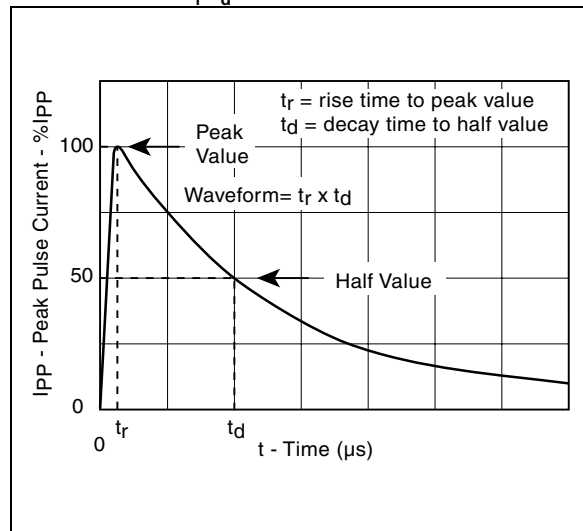
### Notes:

- Surge ratings apply from -40°C to +80°C
- Surge ratings are repetitive and are guaranteed for the life of the product

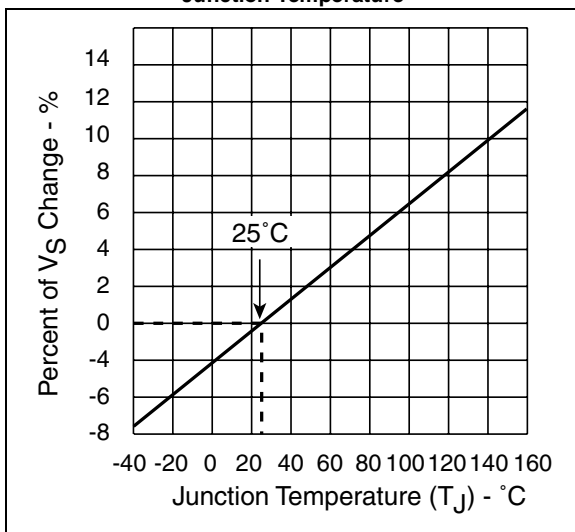
V-I Characteristics



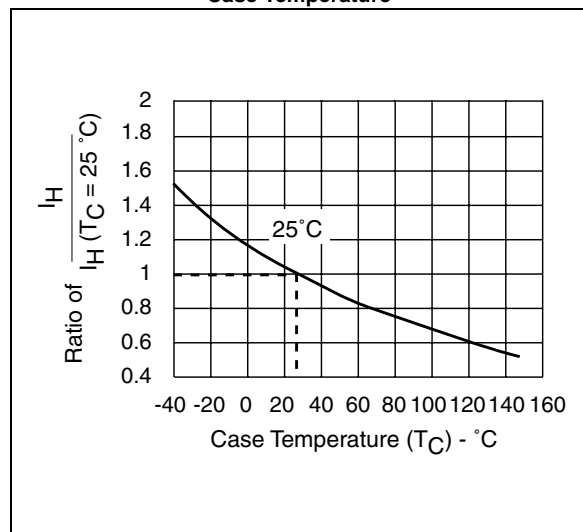
$t_r, t_d$  Pulse Wave-form



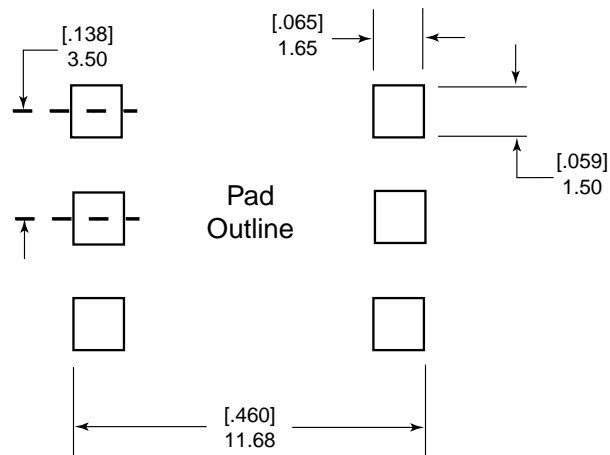
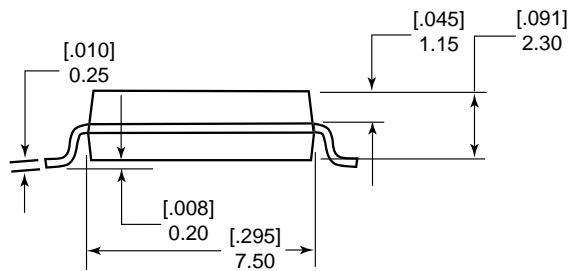
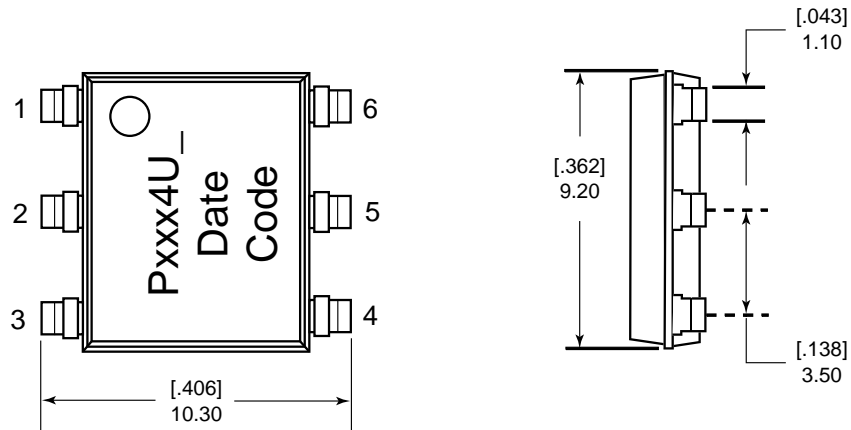
Normalized  $V_S$  Change vs. Junction Temperature



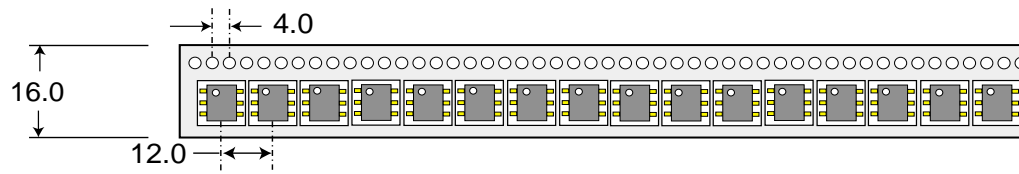
Normalized DC Holding Current vs. Case Temperature



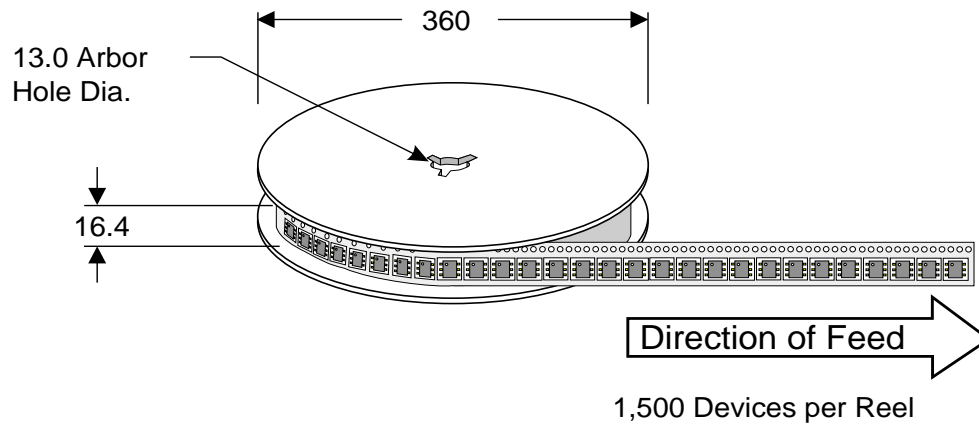
## Package and Layout Dimensions



## Tape and Reel Packing Specifications



Dimensions  
are in mm



**TECCOR ELECTRONICS**

1800 Hurd Drive  
Irving, Texas 75038-4385  
United States of America

Phone: +1 972-580-7777

Fax: +1 972-550-1309

Web site: <http://www.teccor.com>

E-mail: [sidactor.techsales@teccor.com](mailto:sidactor.techsales@teccor.com)

Please contact the factory for further information.

Data Sheet: Pxxx4U\_ - 041601

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- 4,905,119 - 5,479,031 - 5,516,705

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