

**6 Pin SOIC Package**

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

**Preliminary  
Balanced  
Line Protector  
Pxxx3U\_**

## **Features**

- Balanced "Y" configuration (US Patent 4,905,119)
- 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

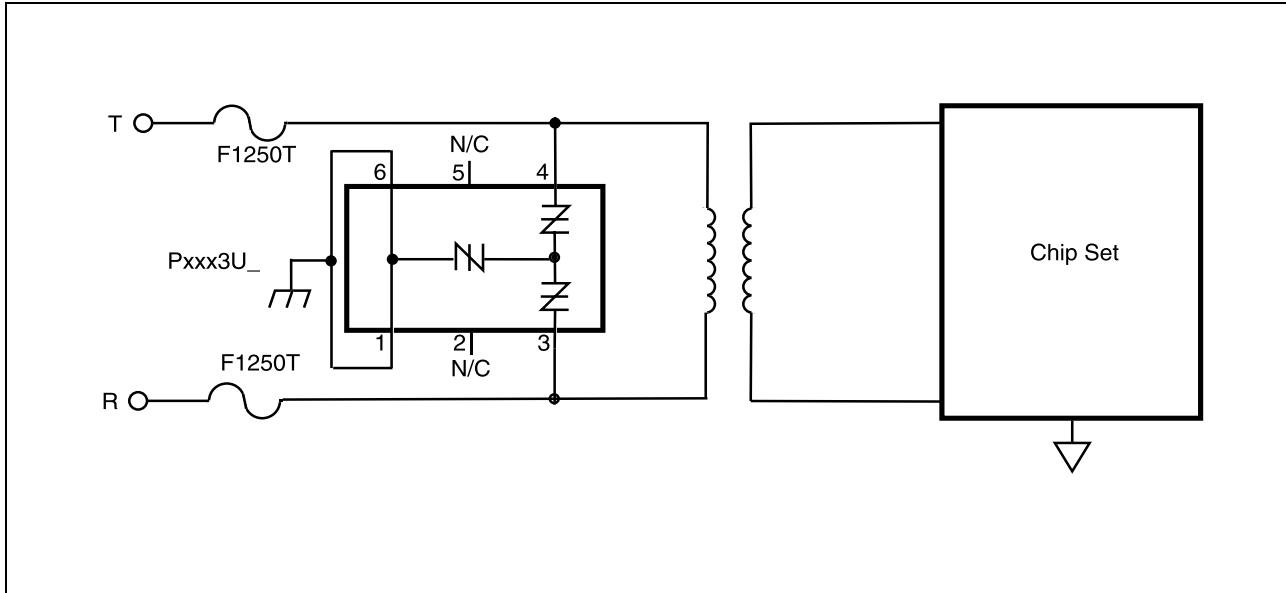


## Description

Teccor's new Balanced Protector is designed to offer Teccor customers a surface mount alternative to our traditional modified TO-220 package. Based on a 6-pin SOIC package, Teccor's Balanced Protector is built using Teccor's patented "Y" (US Patent 4,905,119) configuration and is available in surge current ratings of up to 500A.

Available in standard or custom voltage configurations, Teccor's Balanced Protector can help provide a simple solution for complex regulatory requirements.

Example Circuit



## Electrical Specifications

Pxxx3U\_

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
P1553U_	130	180	10	5	800	1	120	40
P1803U_	150	210	10	5	800	1	120	40
P2103U_	170	250	10	5	800	1	120	40
P2353U_	200	270	10	5	800	1	120	40
P2703U_	230	300	10	5	800	1	120	30
P3203U_	270	350	10	5	800	1	120	30
P3403U_	300	400	10	5	800	1	120	30
P5103U_	420	600	10	5	800	1	120	30

Notes:

- V<sub>DRM</sub> and V<sub>S</sub> ratings are between Tip, Ring and Ground
- V<sub>DRM</sub> is measured at I<sub>DRM</sub> and V<sub>S</sub> is measured at 100V/μs
- Isolation between unused 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

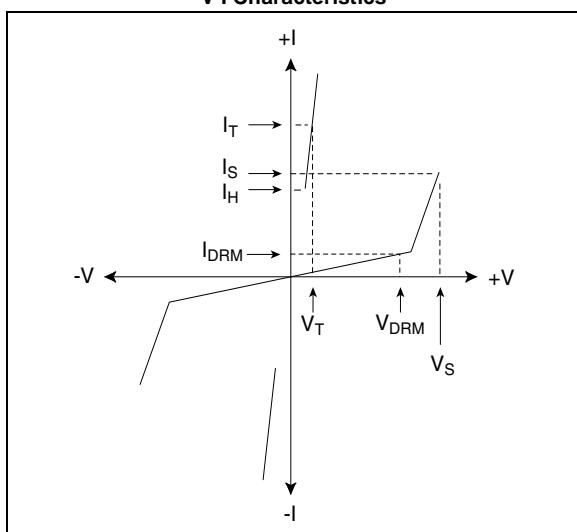
## Surge Ratings

Series	I <sub>PP</sub> 2x10μs Amps	I <sub>PP</sub> 8x20μs Amps	I <sub>PP</sub> 10x160μs Amps	I <sub>PP</sub> 10x560μs Amps	I <sub>PP</sub> 10x1000μs Amps	I <sub>TSM</sub> 60Hz Amps	di/dt Amps/μs
A	200	150	100	60	50	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500

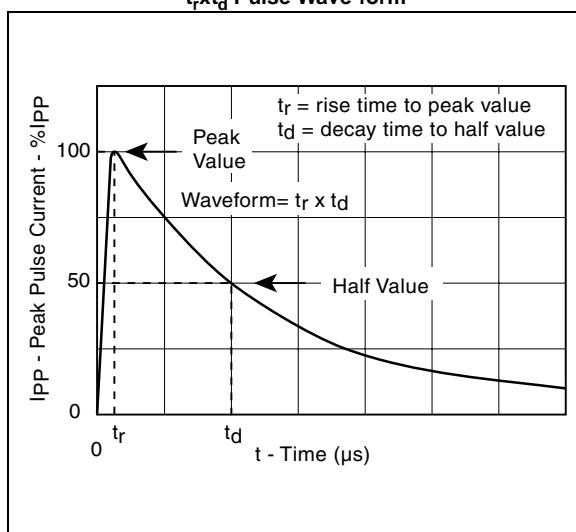
Notes:

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

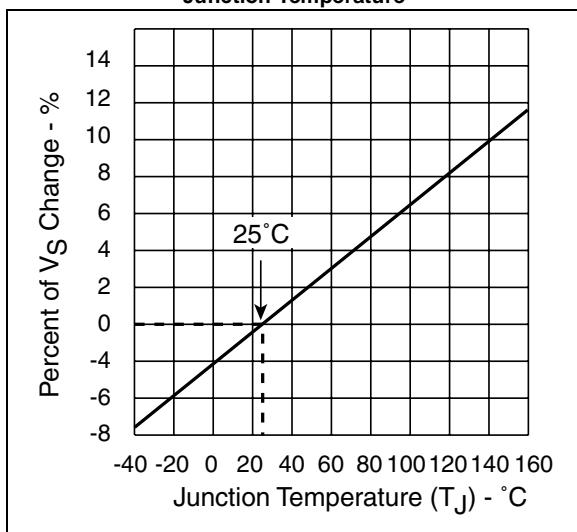
V-I Characteristics



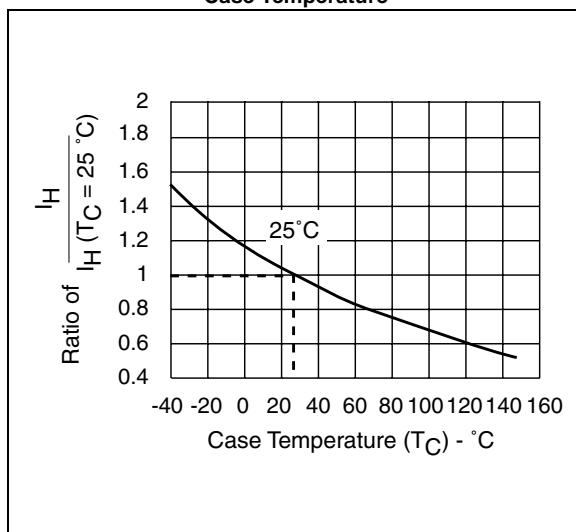
$t_r, t_d$  Pulse Wave-form



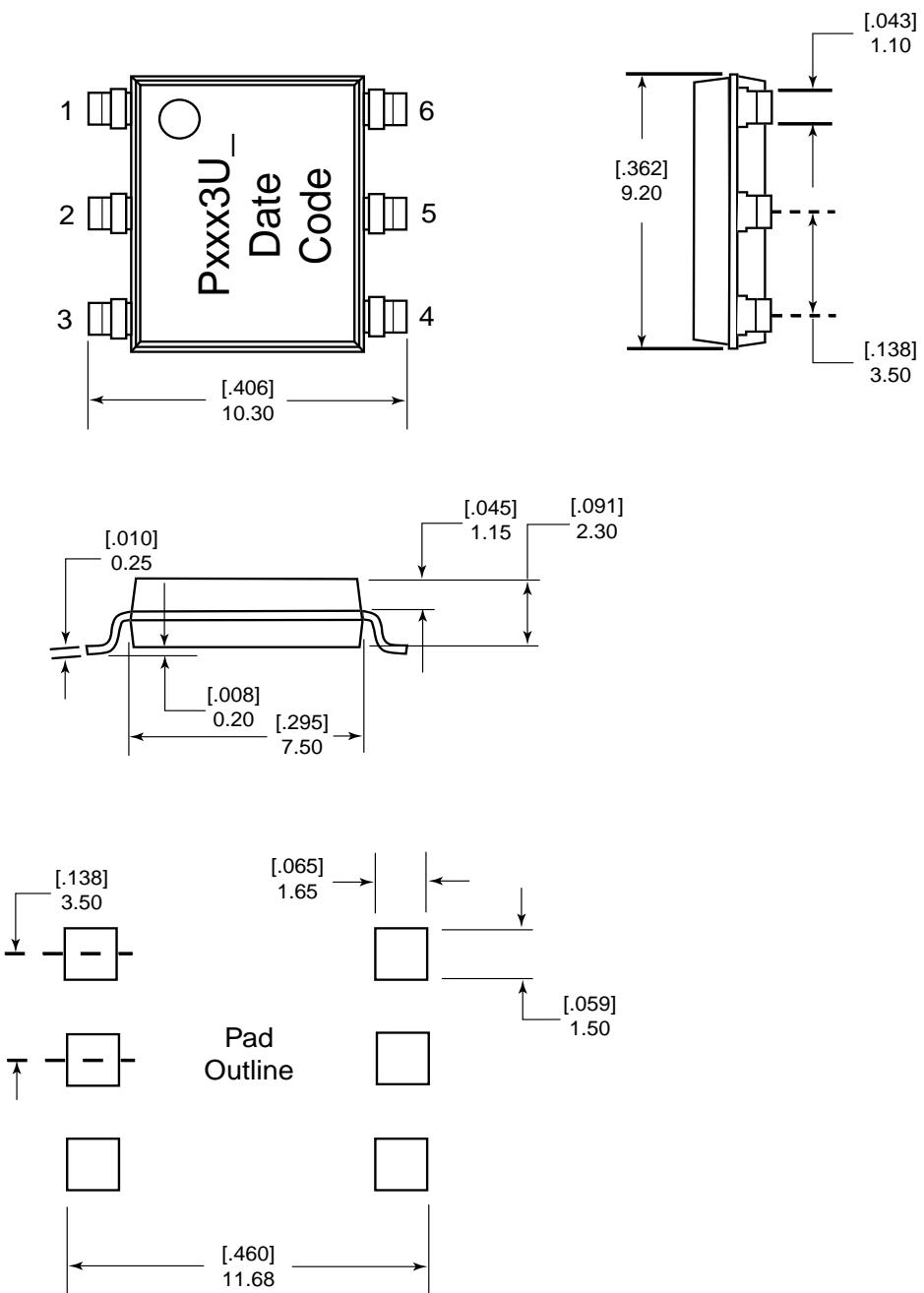
Normalized  $V_S$  Change vs.  
Junction Temperature



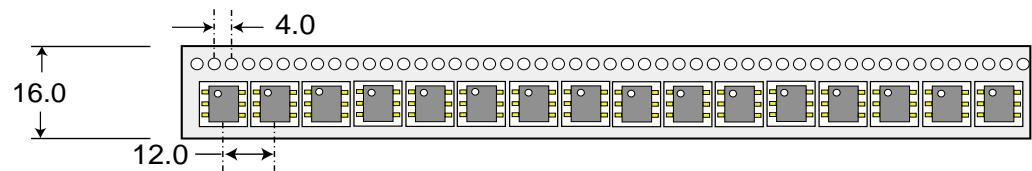
Normalized DC Holding Current vs.  
Case Temperature



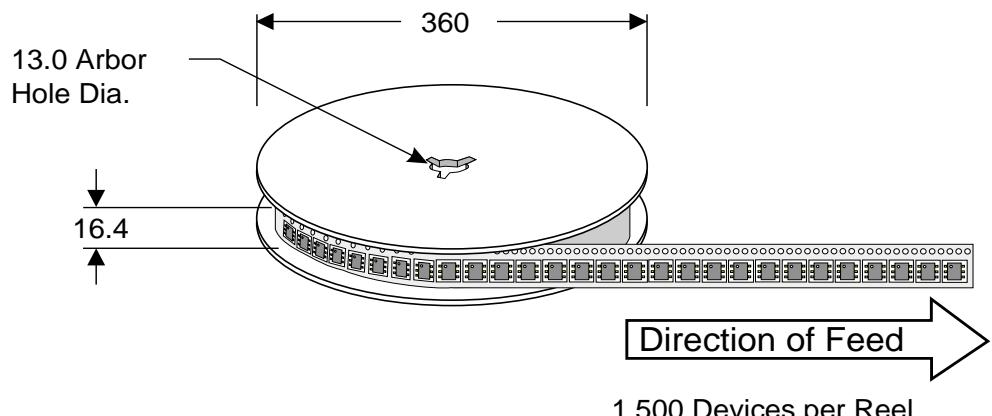
## Package and Layout Dimensions



## 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: Pxxx3U\_ - 051401

Teccor Electronics is the proprietor of the trademarks  
SIDACTor®, Battrax®, and TeleLink®.

Teccor Electronics SIDACTor® TVS product is covered  
by these and other U.S. Patents: 4,685,120 - 4,827,497  
- 4,905,119 - 5,479,031 - 5,516,705