



# TS340IS

## MICRO SURFACE MOUNT SCHOTTKY BRIDGE

**VOLTAGE** 40 Volt **CURRENT** 3 Ampere

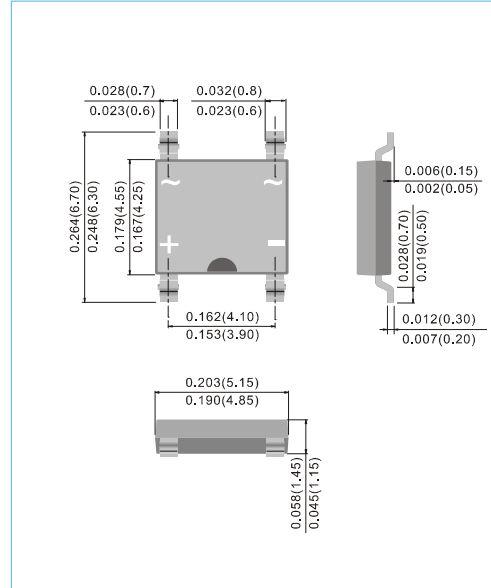
**MICRO DIP / TDI** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Epitaxial chip construction.
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: TDI Molded plastic
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Weight: 0.003 ounces, 0.09 grams.
- Marking: Part number



### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER   | SYMBOL   | VALUE       | UNITS |
|---|--|-------------|-------|
| Maximum Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                                       | 40          | V     |
| Maximum RMS Reverse Voltage   | V <sub>RMS</sub>                                       | 28          | V     |
| Maximum DC Blocking Voltage   | V <sub>R</sub>   | 40          | V     |
| Maximum Average Forward Current   | I <sub>F(AV)</sub>                                     | 3           | A     |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load per diode | I <sub>FSM</sub>                                       | 60          | A     |
| Typical Thermal Resistance  | (Note 2) R <sub>θJA</sub><br>(Note 1) R <sub>θJC</sub> | 145<br>27   | °C/W  |
| Operating Junction Temperature Range  | T <sub>J</sub>   | -55 to +150 | °C    |
| Storage Temperature Range   | T <sub>STG</sub>                                       | -55 to +150 | °C    |

#### NOTES :

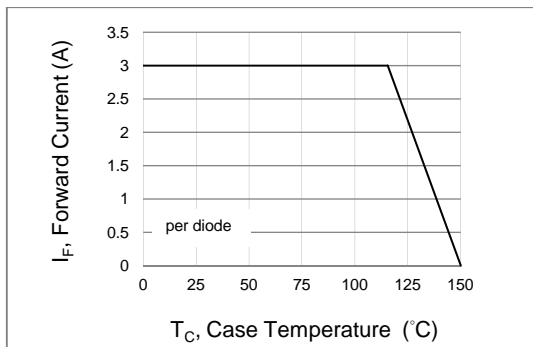
1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



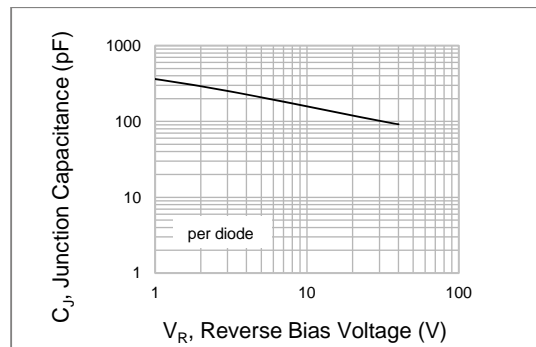
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## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

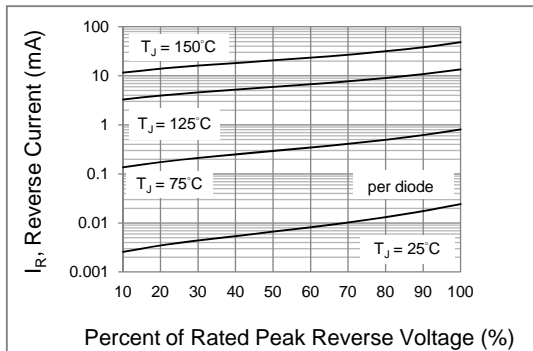
| PARAMETER                               | SYMBOL          | TEST CONDITIONS  | MIN.   | TYP.    | MAX.     | UNIT     |
|---|-----------------|--|--------|---------|----------|----------|
| Breakdown voltage per diode             | V <sub>BR</sub> | I <sub>R</sub> =0.5mA  | 40     | -       | -        | V        |
| Instantaneous forward voltage per diode | V <sub>F</sub>  | I <sub>F</sub> =3A      T <sub>A</sub> =25°C                           | -      | 0.5     | 0.53     | V        |
|   |                 | I <sub>F</sub> =3A      T <sub>A</sub> =125°C                          | -      | 0.44    | -        | V        |
| Reverse current per diode               | I <sub>R</sub>  | V <sub>R</sub> =28V  | -      | 10      | -        | μA       |
|   |                 | V <sub>R</sub> =40V      T <sub>A</sub> =25°C<br>T <sub>A</sub> =100°C | -<br>- | -<br>15 | 100<br>- | μA<br>mA |



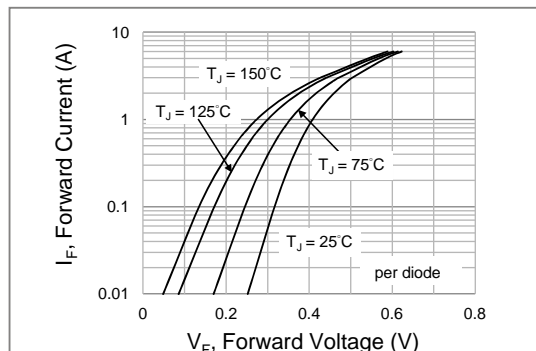
**Fig.1 Forward Current Derating Curve**



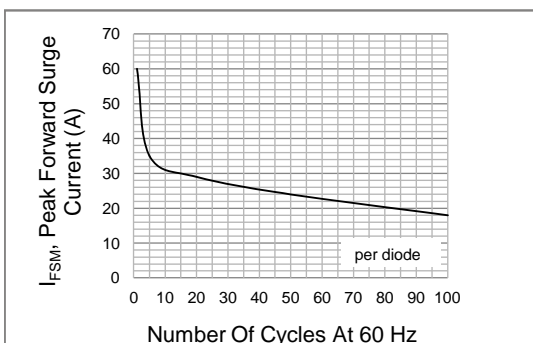
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional Use Only**

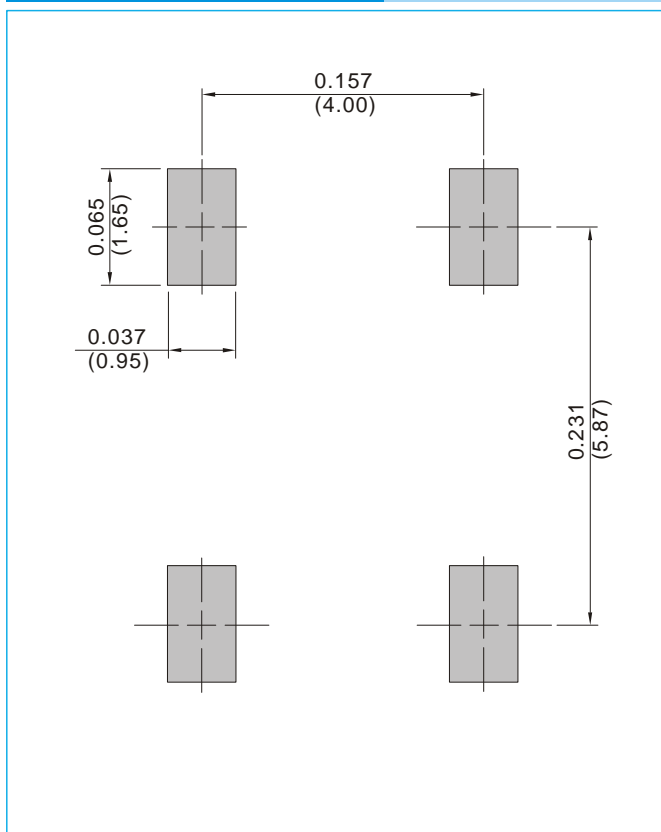


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## MOUNTING PAD LAYOUT

### MICRO DIP / TDI

Unit : inch(mm)



## ORDER INFORMATION

- Packing information  
T/R - 4K per 13" plastic Reel  
T/R - 1K per 7" plastic Reel



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## Part No\_packing code\_Version

TS340IS\_R1\_00001

TS340IS\_R2\_00001

For example :

**RB500V-40** **R2** **00001**



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | A                    | N/A                              | 0                    | HF                        | 0                    | serial number                         |
| Tape and Reel (T/R)                  | R                    | 7"                               | 1                    | RoHS                      | 1                    | serial number                         |
| Bulk Packing (B/P)                   | B                    | 13"                              | 2                    |                           |                      |                                       |
| Tube Packing (T/P)                   | T                    | 26mm                             | X                    |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | S                    | 52mm                             | Y                    |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP (PBCU)   | U                    |                           |                      |                                       |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD) | D                    |                           |                      |                                       |



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