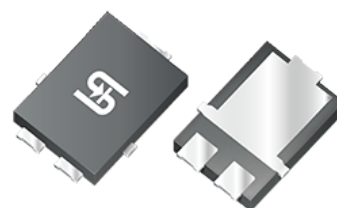
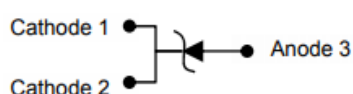


# 1500W, 12V – 51V SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

TSC publish 1500W TVS packaged in low profile SMPC4.6U package, its height is 1mm which is suitable for thinner package concern application. The series breakdown voltage support from 12V to 51V and non-repetitive peak power dissipation capability up to 1500W. The junction temperature up to 175°C could provide wide power derating performance.



**SMPC4.6U**

## KEY FEATURES:

- AEC-Q101 qualified
- Meet ISO 7637-2 (Pulse 1/2a/2b/3a/3b)
- Meets IEC 61000-4-2 (Level: 4) / ISO 10605 (Level: L4)
- Halogen-Free (IEC 61249-2-21)

## APPLICATION:

- Automotive head light
- Switching mode power supply
- DC-DC Converters
- Battery management system

## KEY PERFORMANCE

| PART NUMBER  | $V_{BR}$ [V] |      | $P_{PPM}$ [W] | $I_T$ [mA] | $V_{WM}$ [V] | $I_R$ [ $\mu$ A]       |                         | $I_{PPM}$ [A] | $V_C$ [V] | $\alpha T$ [%/°C] |
|--------------|--------------|------|---------------|------------|--------------|------------------------|-------------------------|---------------|-----------|-------------------|
|              | Min.         | Max. |               |            |              | $T_J=25^\circ\text{C}$ | $T_J=150^\circ\text{C}$ |               |           |                   |
| 1K5SMPC12APH | 11.4         | 12.6 | 1500          | 1          | 10.2         | 2                      | 10                      | 89.8          | 16.7      | 0.07              |
| 1K5SMPC13APH | 12.4         | 13.7 | 1500          | 1          | 11.1         | 2                      | 10                      | 82.4          | 18.2      | 0.072             |
| 1K5SMPC15APH | 14.3         | 15.8 | 1500          | 1          | 12.8         | 1                      | 10                      | 70.8          | 21.2      | 0.076             |
| 1K5SMPC16APH | 15.2         | 16.8 | 1500          | 1          | 13.6         | 1                      | 10                      | 66.7          | 22.5      | 0.078             |
| 1K5SMPC18APH | 17.1         | 18.9 | 1500          | 1          | 15.3         | 1                      | 10                      | 59.5          | 25.2      | 0.08              |
| 1K5SMPC20APH | 19           | 21   | 1500          | 1          | 17.1         | 1                      | 10                      | 54.2          | 27.7      | 0.082             |
| 1K5SMPC22APH | 20.9         | 23.1 | 1500          | 1          | 18.8         | 1                      | 10                      | 49            | 30.6      | 0.084             |
| 1K5SMPC24APH | 22.8         | 25.2 | 1500          | 1          | 20.5         | 1                      | 10                      | 45.2          | 33.2      | 0.085             |
| 1K5SMPC27APH | 25.7         | 28.4 | 1500          | 1          | 23.1         | 1                      | 10                      | 40            | 37.5      | 0.087             |
| 1K5SMPC30APH | 28.5         | 31.5 | 1500          | 1          | 25.6         | 1                      | 10                      | 36.2          | 41.4      | 0.088             |
| 1K5SMPC33APH | 31.4         | 34.7 | 1500          | 1          | 28.2         | 1                      | 10                      | 32.8          | 45.7      | 0.089             |
| 1K5SMPC36APH | 34.2         | 37.8 | 1500          | 1          | 30.8         | 1                      | 15                      | 30.1          | 49.9      | 0.09              |
| 1K5SMPC39APH | 37.1         | 41   | 1500          | 1          | 33.3         | 1                      | 15                      | 27.8          | 53.9      | 0.091             |
| 1K5SMPC43APH | 40.9         | 45.2 | 1500          | 1          | 36.8         | 1                      | 20                      | 25.3          | 59.3      | 0.092             |
| 1K5SMPC47APH | 44.7         | 49.4 | 1500          | 1          | 40.2         | 1                      | 20                      | 23.1          | 64.8      | 0.092             |
| 1K5SMPC51APH | 48.5         | 53.6 | 1500          | 1          | 43.6         | 1                      | 20                      | 21.4          | 70.1      | 0.093             |

For pricing and more information, please contact TSC sales or authorized distributors.