





## SuperTVS – 400W Transient Voltage Suppressor

## 1. Features

- Low profile package
- For surface mounted applications in order to optimize board space
- Glass passivated junction
- 400 Watts peak pulse power capability with a 10/1000 $\mu$ s waveform
- Built-in strain relief
- Excellent clamping capability
- Fast response time: typically less than 1.0ps from 0 Volts to VBR min for unidirectional types
- Low inductance

## 2. Marking Information

BI- directional	UNI-directional	Marking
		XXXX= Product type marking code (See Electrical Characteristics Table)
		

## 3. Maximum Ratings and Characteristics

Ratings at 25° ambient temperature unless otherwise specified

Rating	Symbol	Value	Units
Peak pulse power dissipation at 10/1000 $\mu$ s waveform (Note1, Note2)	P <sub>PP</sub>	400	W
Operating junction	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C
Typical thermal resistance junction to ambient	R <sub>θJA</sub>	220	°C/W

Notes:

1. Non-repetitive current pulse.
2. Pulse Power Dissipation is 370W min, 400W typical @10/1000 $\mu$ s.

Part Number	Marking	Reverse Stand off Voltage VR	Breakdown Voltage VBR (Volts) @ IT		Test Current IT	Maximum Clamping Voltage VC @ Ipp	Maximum Peak Pulse Current Ipp	Maximum Reverse Leakage IR @ VR
UNI	UNI	(V)	MIN	MAX	(mA)	(V)	(A)	( $\mu$ A)
PTVS3V3S1UR,115(ES)	KC	3.3	4.2	6.5	10	7.3	54.8	200

#### 4. Ratings and Characteristic Curves (TA =25°C unless otherwise noted)

Figure 1. TVS Transients Clamping Waveform

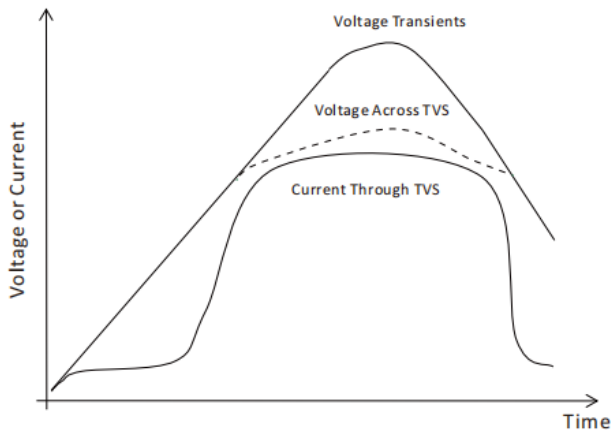


Figure 2. Peak Pulse Power Rang Curve

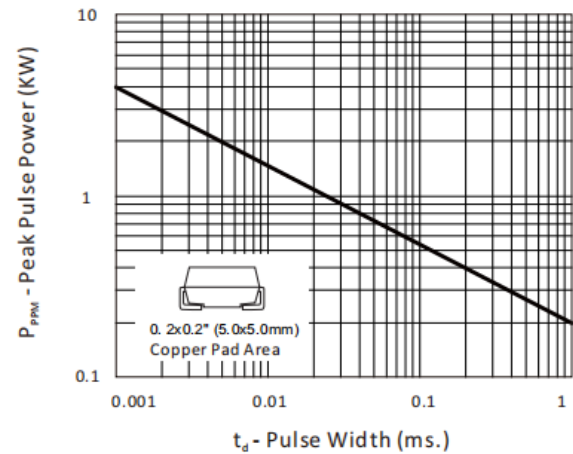


Figure 3. Pulse Derating Curve

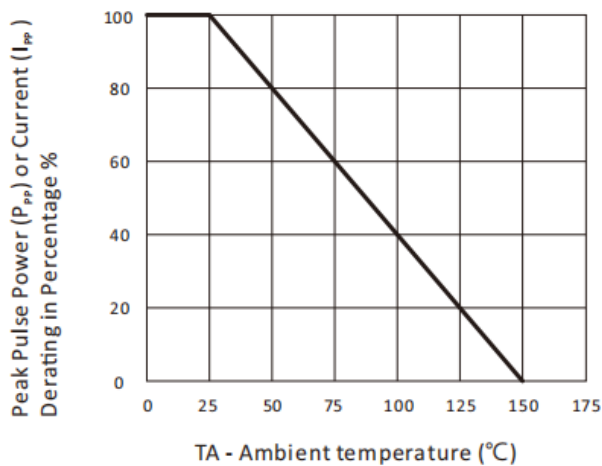


Figure 4. Pulse Waveform

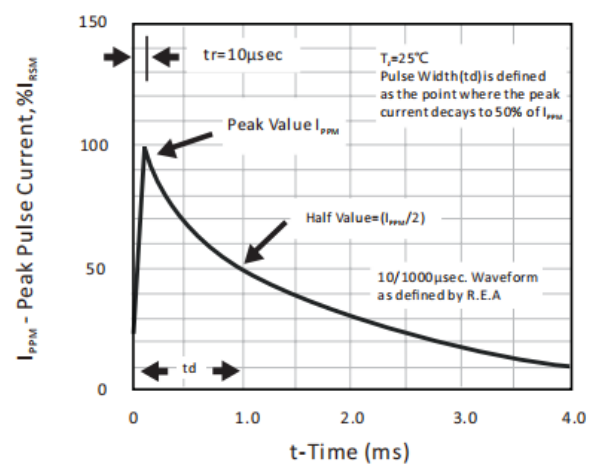
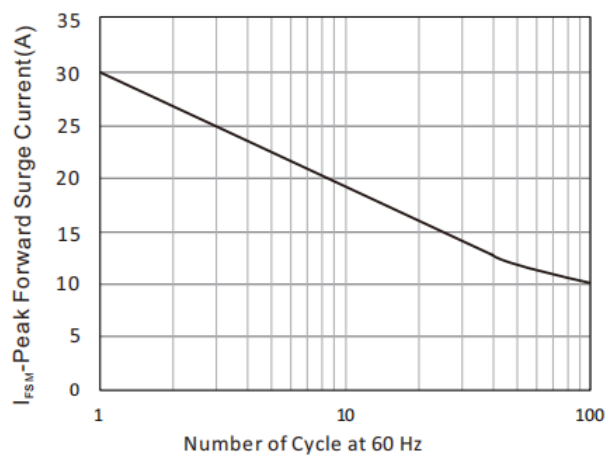


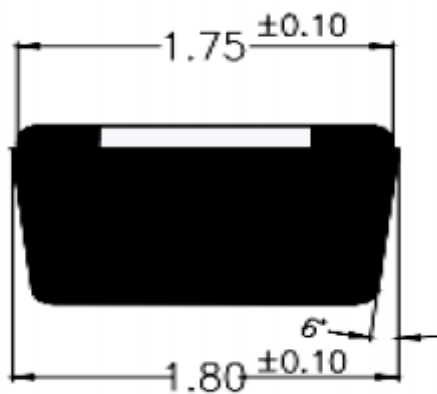
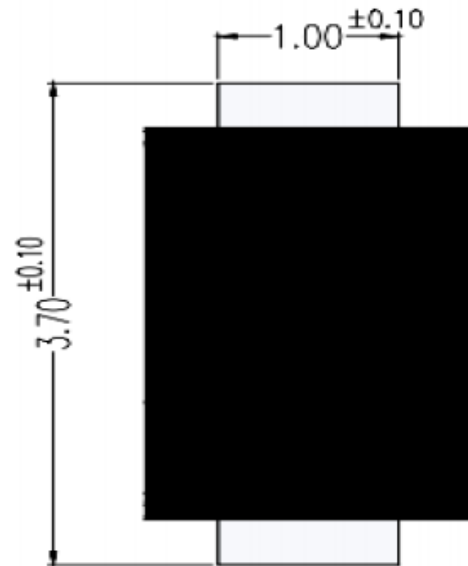
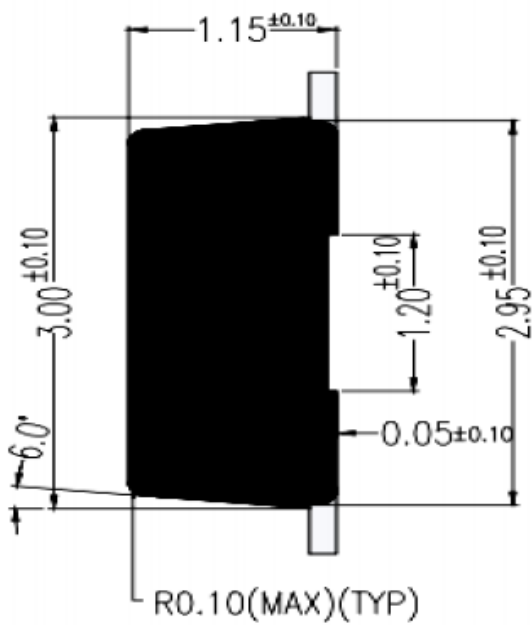
Figure 5. Maximum Non-Repetive Peak Forward Surge Current Uni-Directional Only



## PTVS3V3S1UR,115(ES)

Rev-1.1

## 5. Dimension (SOD-123FL)



Unit: inch(mm)

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