# 6SMX73V3A

**DFN Package**
**Uni-Directional TVS Diode**

**Peak Pulse Power - 600 W**
**Reverse Stand Off Voltage - 3.3 V**

## Description

6SMX73V3A is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

## Features

- 600W peak pulse power capability at 10/1000μs waveform, repetition rate (duty cycle): 0.01%
- Compatible with industrial standard package SOD-123HE
- Low profile: maximum height of 0.9 mm
- For surface mounted applications to optimize board space
- Typical failure mode is short from over-specified voltage or current
- Whisker test is conducted based on JEDEC JESD201A per its table 4a and 4c
- IEC-61000-4-2 ESD 30kV(Air), 30kV (Contact)

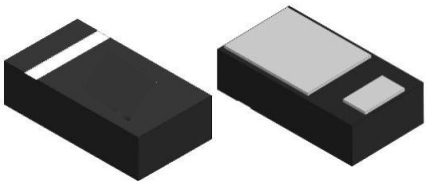
## Mechanical Data

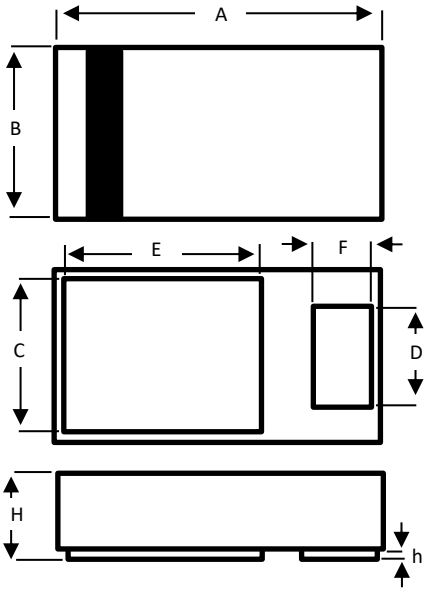
- Case:DFN3719 package
- Case material: “green” molding compound
- UL flammability classification rating 94V-0

## Applications

6SMX73V3A devices are ideal for the protection of portable devices/hard drives, notebooks, VCC busses, POS terminal, SSDs, power supplies, monitors, and vulnerable circuit used in other consumer applications.

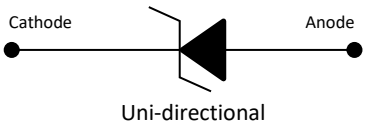
## Package Outline Dimensions






| DFN3719 Package | | |
|---|---|---|
| Dim | Min | Max |
| A | 3.60 | 3.80 |
| B | 1.80 | 2.00 |
| C | 1.40 | 1.70 |
| D | 0.55 | 0.85 |
| E | 2.10 | 2.40 |
| F | 0.35 | 0.65 |
| H | 0.70 | 0.90 |
| h | 0.05(typ) | |
| All Dimensions in mm | | |

## Device Schematic




Uni-directional

## Marking Information

## Ordering Information

- Package :DFN3719
- Reel Size :7 (inches)
- Quantity Per Reel :4Kpcs

## Maximum Ratings (@TA = +25°C, unless otherwise specified.)

**Absolute Ratings**

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Peak Pulse Power Dissipation at TA=25°C by 10/1000us Waveform | $P_{PP}$ | 600 | W |
| Peak Pulse Current (10/1000us) | $I_{PP}$ | 97 | A |
| Operating Temperature Range | $T_j$ | -55 to +150 | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | °C |
| Thermal Resistance Junction- to- Ambient | $R_{\theta JA}$ | 120 | °C/W |
| Thermal Resistance Junction- to- Lead | $R_{\theta JL}$ | 60 | °C/W |

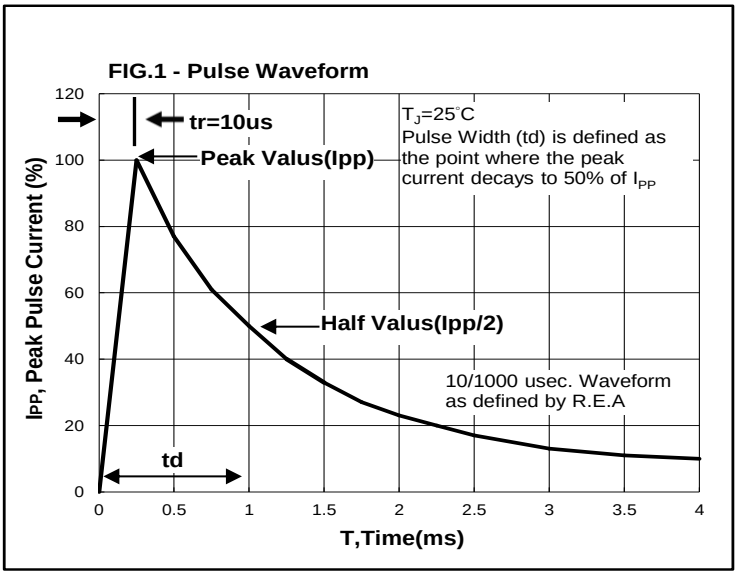
## Electrical Characteristics (@$T_A$ = 25°C, unless otherwise specified.)

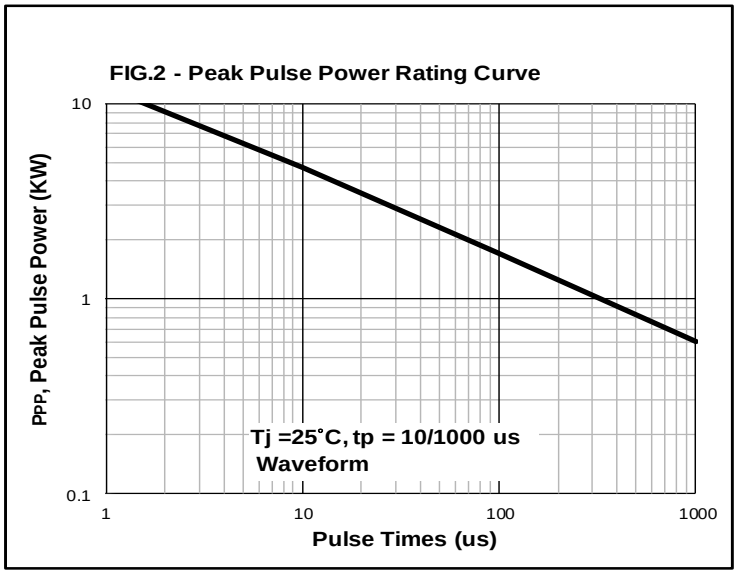
| Part Number | Marking Code | Reverse Working Voltage $V_{RWM}$(V) | Reverse Breakdown Voltage $V_B$(V) | | | Reverse Leakage Current (Max) $I_R$(uA) @$V_R$ | Peak Pulse Current (Max) $I_{PP}$(A) | Reverse Clamping Voltage (Max) $V_C$(V) @$I_{PP}$ |
|---|---|---|---|---|---|---|---|---|
| | | | Min. | Max. | @$I_T$(mA) | | | |
| 6SMX73V3A | 336 | 3.3 | 3.4 | 4.3 | 10 | 0.5 | 97 | 6.2 |

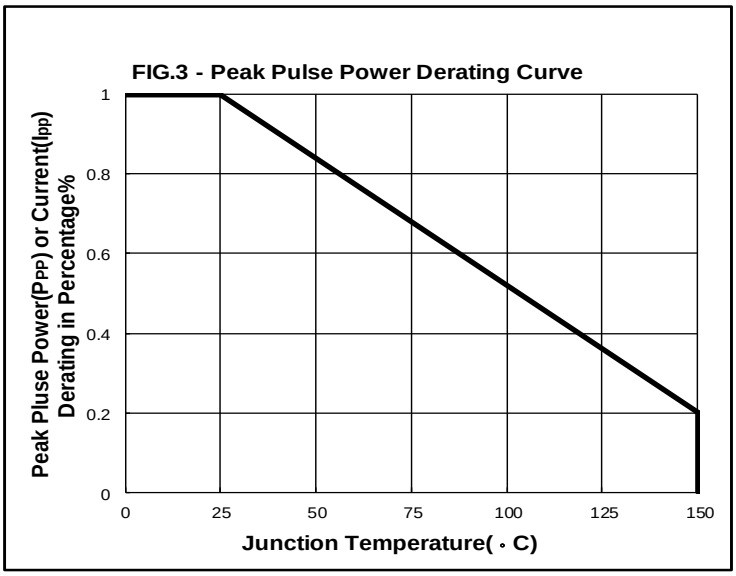
Note:

1. $V_{BR}$ measured after $I_T$ applied for 300µs, $I_T$ = square wave pulse or equivalent.
2. Surge current waveform per 10/1000µs exponential wave and derated per Fig.2.
3. Non-repetitive current pulse(10/1000µs), derated above $T_J$ initial 25 °C per Fig.3.

## Rating and Characteristic Curves




The curve above is for reference only.

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