## Description

TVS diodes can be used in a wide range of applications which like consumer electronic products, automotive industries, munitions, telecommunications, aerospace

## Features

- For surface mounted applications
- Excellent clamping capability
- 4500 W peak pulse power capability with a 8/20 μs Waveform.
- $V_{RWM}$ 36 V
- Low profile package and low inductance
- Typical IR less than 1uA above 10V
- Fast response time: typically less than 1.0ps from 0V to $V_{BR}$ min.

## Applications

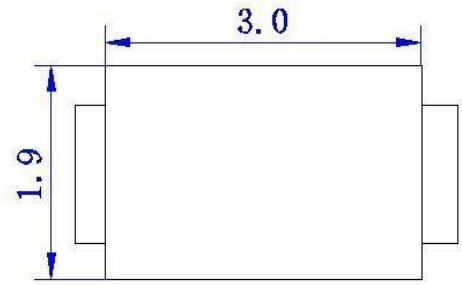
- computer system
- domestic appliance
- video input

## Mechanical Characteristics

- Package: SMF/SOD123FL
- Case Material:Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Meet MSL 1
- Terminal：Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode except bi-directional models

Weight: 0.07gApproximate)

**Dimensions & Symbol（Unit: mm Max）**





Bi-directional

## Electrical Characteristics (T=25℃)

| Part Number | Marking | $V_R$ | $I_R$@$V_R$ | $V_{BR}$@$I_T$ | | $I_T$ | $V_C$@$I_{PP}$ | $I_{PP}$① | Co② |
|---|---|---|---|---|---|---|---|---|---|
| | | V | μA | min(V) | max(V) | mA | max(V) | A | Max(pF) |
| MESD4536CA | TC | 36.0 | 1 | 40.0 | 44.2 | 1 | 58 | 60 | 1000 |

Notes：

① Surge waveform: 8/20μs

② Off-state capacitance ($C_O$) is measured at 1 MHz with a 0 V bias and is typical value

$V_R$ ： Stand-off Voltage -- Maximum voltage that can be applied $V_{BR}$： Breakdown Voltage

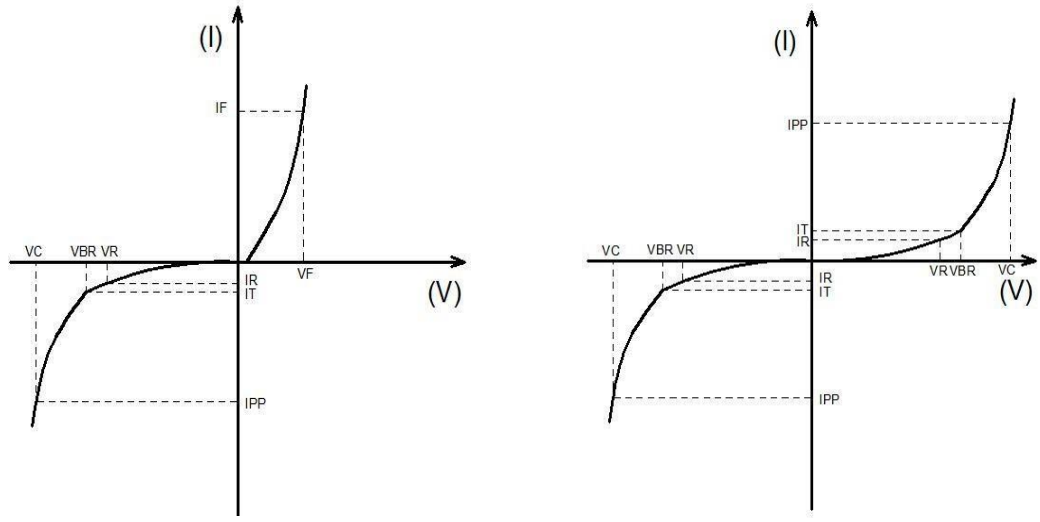
$V_C$： Clamping Voltage -- Peak voltage measured across the suppressor at a specified Ipp $I_R$： Reverse Leakage Curren

## Absolute Maximum Ratings(T=25ºC, RH=45%-75%, unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Peak pulse power dissipation on 8/20μs waveform | $P_{PP}$ | 4500 | W |
| Peak pulse power dissipation on 10/1000μs waveform | Ppp | 400 | W |
| Steady state power dissipation at $T_L$=75℃ | $P_{M(AV)}$ | 1.0 | W |
| Operating junction temperature range | $T_j$ | -55 to +125 | ℃ |
| Storage temperature range | $T_{stg}$ | -55 to +150 | ℃ |

## Ratings And V-I Characteristics Curves (T=25ºC, unless otherwise noted)

FIG1： V-I cure characteristics



## Typical Characteristics

FIG2：Pulse Derating Curve

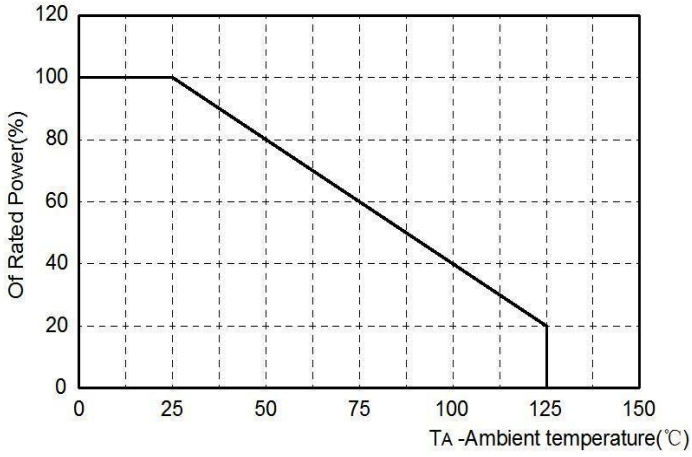



FIG3：Pulse Waveform

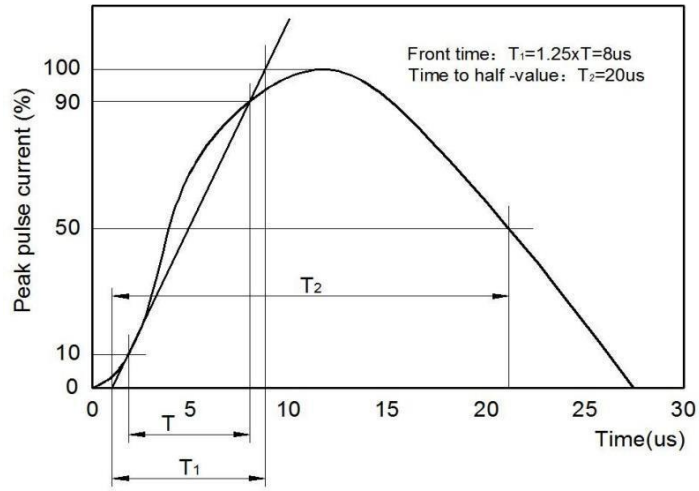



FIG4：Peak Pulse Power Rating Curve

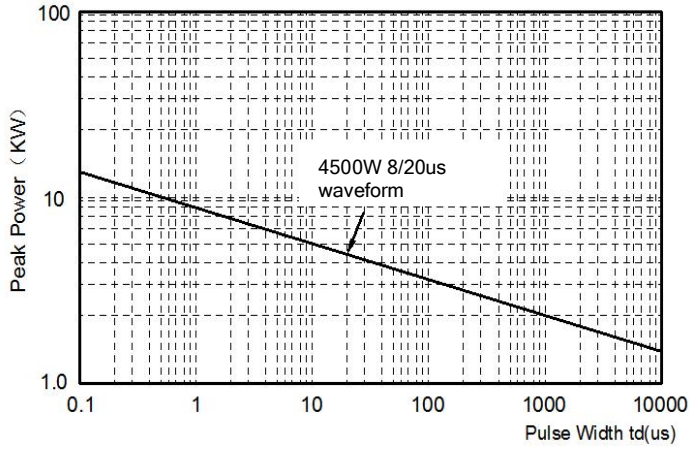
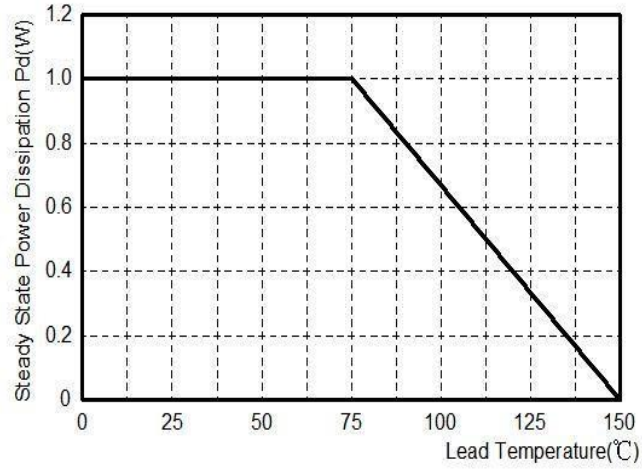
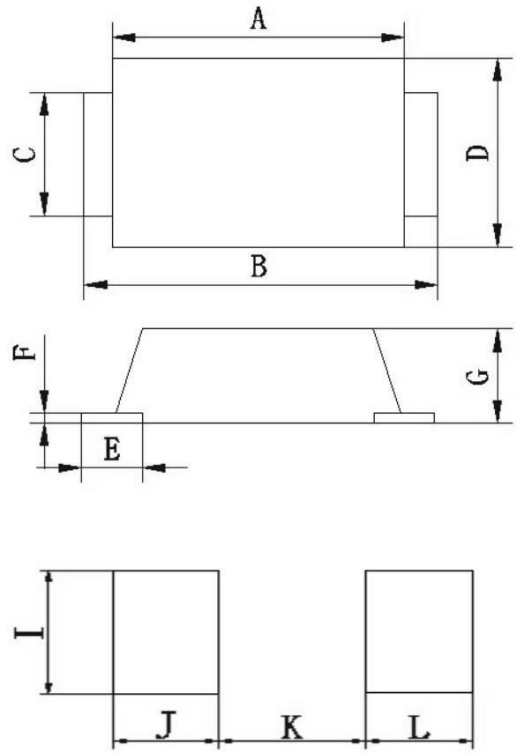



FIG5：Steady State Power Dissipation



**Package mechanical data & Suggested Land Pattern**




| Ref.(mm) | Millimeters | |
|---|---|---|
| | Min. | Max. |
| A | 2.5 | 3.0 |
| B | 3.4 | 4.0 |
| C | 0.7 | 1.1 |
| D | 1.5 | 1.9 |
| E | 0.45 | 0.95 |
| F | 0.05 | 0.26 |
| G | 0.9 | 1.1 |
| I | 1.2 | |
| J | 0.85 | |
| K | | 2.3 |
| L | 0.85 | |