



## 36V SM8S36AG Circuit Protection Components TVS Diode Unidirectional Surface Mount

Our Product Introduction

### Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: SM8S36AG
- Minimum Order Quantity: 500PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



### Product Specification

- SM8S36AG Package: DO-218AB
- SM8S36AG Vr: 36V
- Ir@Vr @25 : 5μA
- SM8S36AG Ir@Vr @175 : 150μA
- Vbr@It (Min.): 40.0V
- SM8S36AG Vbr@It (Max.): 44.2V
- SM8S36AG It: 5mA
- SM8S36AG Vc@Ipp: 58.1V
- SM8S36AG Ipp: 114A
- Highlight: **36V Circuit Protection Components,  
Unidirectional Circuit Protection Components,  
36V TVS Diode Unidirectional**

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## Product Description

### SOCAY 36V Uni-directional TVS Diodes SM8S36AG, Surface Mount Transient Voltage Suppressors

DATASHEET: [SM8SXXG Series\\_v2309.1.pdf](#)



#### Description:

The SM8S series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

| Part Number |           | Working Peak Reverse Voltage<br>$V_{RWM}$ (V) | Breakdown Voltage<br>$V_{BR}$ (V) |      | Test Current<br>$I_T$ (mA) | Maximum Reverse Leakage<br>$I_R$ @ $V_{RWM}$ ( $\mu A$ ) | Maximum $I_R$ @ $V_{RWM}$<br>$T_J=175$ ( $\mu A$ ) | Maximum Reverse Surge Current<br>$I_{PP}$ (A) | Maximum Clamping Voltage<br>$V_C$ @ $I_{PP}$ (V) |
|-------------|-----------|-----------------------------------------------|-----------------------------------|------|----------------------------|----------------------------------------------------------|----------------------------------------------------|-----------------------------------------------|--------------------------------------------------|
| Uni         | Bi        |                                               | Min.                              | Max. |                            |                                                          |                                                    |                                               |                                                  |
| SM8S10AG    | SM8S10CAG | 10.0                                          | 11.1                              | 12.3 | 5.0                        | 15                                                       | 250                                                | 388                                           | 17.0                                             |
| SM8S11AG    | SM8S11CAG | 11.0                                          | 12.2                              | 13.5 | 5.0                        | 10                                                       | 150                                                | 363                                           | 18.2                                             |
| SM8S12AG    | SM8S12CAG | 12.0                                          | 13.3                              | 14.7 | 5.0                        | 10                                                       | 150                                                | 332                                           | 19.9                                             |
| SM8S13AG    | SM8S13CAG | 13.0                                          | 14.4                              | 15.9 | 5.0                        | 10                                                       | 150                                                | 307                                           | 21.5                                             |
| SM8S14AG    | SM8S14CAG | 14.0                                          | 15.6                              | 17.2 | 5.0                        | 10                                                       | 150                                                | 284                                           | 23.2                                             |
| SM8S15AG    | SM8S15CAG | 15.0                                          | 16.7                              | 18.5 | 5.0                        | 10                                                       | 150                                                | 270                                           | 24.4                                             |
| SM8S16AG    | SM8S16CAG | 16.0                                          | 17.8                              | 19.7 | 5.0                        | 10                                                       | 150                                                | 254                                           | 26.0                                             |
| SM8S17AG    | SM8S17CAG | 17.0                                          | 18.9                              | 20.9 | 5.0                        | 10                                                       | 150                                                | 239                                           | 27.6                                             |
| SM8S18AG    | SM8S18CAG | 18.0                                          | 20.0                              | 22.1 | 5.0                        | 10                                                       | 150                                                | 226                                           | 29.2                                             |
| SM8S20AG    | SM8S20CAG | 20.0                                          | 22.2                              | 24.5 | 5.0                        | 10                                                       | 150                                                | 204                                           | 32.4                                             |
| SM8S22AG    | SM8S22CAG | 22.0                                          | 24.4                              | 26.9 | 5.0                        | 10                                                       | 150                                                | 186                                           | 35.5                                             |
| SM8S24AG    | SM8S24CAG | 24.0                                          | 26.7                              | 29.5 | 5.0                        | 10                                                       | 150                                                | 170                                           | 38.9                                             |
| SM8S26AG    | SM8S26CAG | 26.0                                          | 28.9                              | 31.9 | 5.0                        | 10                                                       | 150                                                | 157                                           | 42.1                                             |

|              |               |      |      |       |     |    |     |      |       |
|--------------|---------------|------|------|-------|-----|----|-----|------|-------|
| SM8S28<br>AG | SM8S28C<br>AG | 28.0 | 31.1 | 34.4  | 5.0 | 10 | 150 | 145  | 45.4  |
| SM8S30<br>AG | SM8S30C<br>AG | 30.0 | 33.3 | 36.8  | 5.0 | 10 | 150 | 136  | 48.4  |
| SM8S33<br>AG | SM8S33C<br>AG | 33.0 | 36.7 | 40.6  | 5.0 | 10 | 150 | 124  | 53.3  |
| SM8S36<br>AG | SM8S36C<br>AG | 36.0 | 40.0 | 44.2  | 5.0 | 10 | 150 | 114  | 58.1  |
| SM8S40<br>AG | SM8S40C<br>AG | 40.0 | 44.4 | 49.1  | 5.0 | 10 | 150 | 102  | 64.5  |
| SM8S43<br>AG | SM8S43C<br>AG | 43.0 | 47.8 | 52.8  | 5.0 | 10 | 150 | 95.1 | 69.4  |
| SM8S45<br>AG | SM8S45C<br>AG | 45.0 | 50.0 | 55.3  | 5.0 | 10 | 150 | 90.8 | 72.7  |
| SM8S48<br>AG | SM8S48C<br>AG | 48.0 | 53.3 | 58.9  | 5.0 | 10 | 150 | 85.3 | 77.4  |
| SM8S51<br>AG | SM8S51C<br>AG | 51.0 | 56.7 | 62.7  | 5.0 | 10 | 150 | 80.1 | 82.4  |
| SM8S54<br>AG | SM8S54C<br>AG | 54.0 | 60.0 | 66.3  | 5.0 | 10 | 150 | 75.8 | 87.1  |
| SM8S58<br>AG | SM8S58C<br>AG | 58.0 | 64.4 | 71.2  | 5.0 | 10 | 150 | 70.5 | 93.6  |
| SM8S60<br>AG | SM8S60C<br>AG | 60.0 | 66.7 | 73.7  | 5.0 | 10 | 150 | 68.2 | 96.8  |
| SM8S64<br>AG | SM8S64C<br>AG | 64.0 | 71.1 | 78.6  | 5.0 | 10 | 150 | 64.1 | 103.0 |
| SM8S70<br>AG | SM8S70C<br>AG | 70.0 | 77.8 | 86.0  | 5.0 | 10 | 150 | 58.4 | 113.0 |
| SM8S75<br>AG | SM8S75C<br>AG | 75.0 | 83.3 | 92.1  | 5.0 | 10 | 150 | 54.5 | 121.0 |
| SM8S78<br>AG | SM8S78C<br>AG | 78.0 | 86.7 | 95.8  | 5.0 | 10 | 150 | 52.4 | 126.0 |
| SM8S85<br>AG | SM8S85C<br>AG | 85.0 | 94.4 | 104.0 | 5.0 | 10 | 150 | 48.2 | 137.0 |

**Notes:**

1. Surge current waveform is defined at 10/1000 $\mu$ S waveform.

2. For all types maximum  $V_F = 1.8$  V at  $I_F = 100$  A measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

**Features:**

Optimized glass passivated chip.

$T_J=175$  capability suitable for high reliability and automotive requirement.

6600W peak pulse power capability with a 10/1000 $\mu$ s waveform, repetitive rate (duty cycle): 0.01 %.

Meet ISO7637-2 5a/5b and ISO 16750 load dump test (varied by test condition).

Meet AEC-Q101 qualified.

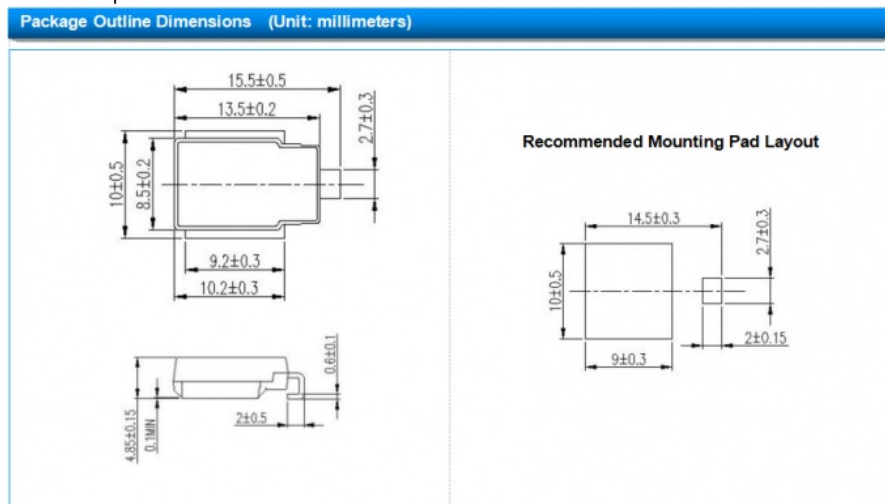
Low leakage current.

Low forward voltage drop.

Excellent clamping capability.

Very fast response time.

RoHS compliant.



**Application:**

Automotive Protection.

**Packaging**

| Part Number    | Component Package | Quantity | Packaging Option                                                       |
|----------------|-------------------|----------|------------------------------------------------------------------------|
| SM8SXXG Series | DO-218AB          | 500 PCS  | 13" diameter plastic tape and reel,<br>anode towards the sprocket hole |

**SOCAY® Shenzhen Socay Electronics Co., Ltd.****+8618126201429****sylvia@socay.com****socaydiode.com**

4/F, Block C, HeHengXing Science & Technology Park, 19 MinQing Road, LongHua District, Shenzhen City,  
GuangDong Province, China