



Unidirectional Circuit Protection Components TVS Diodes SM8S20AG AEC-Q101 Qualified For Automotive Protection

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: SM8S20AG
- Minimum Order Quantity: 500PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

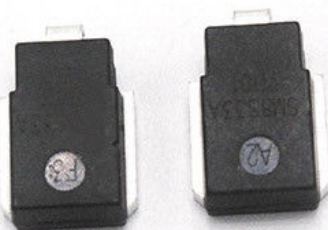
- Product Name: TVS Diodes
- Package Type: DO-218AB
- Vr: 20V
- Ir@Vr @25 : 5μA
- Ir@Vr @175 : 150μA
- It: 5mA
- Vc@Ipp: 32.4V
- Ipp: 204A
- Storage Temperature: -55°C To +175°C
- Highlight: **Unidirectional Circuit Protection Components,
AEC-Q101 Circuit Protection Components,
SM8S20AG**

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Product Description

Uni-Directional TVS Diodes SM8S20AG, Meet AEC-Q101 Qualified, for Automotive Protection

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 V_{RWM} (V)	Breakdown Voltage V_{BR} (V)		Test Current I_T (mA)	Maximum Reverse Leakage I_R @ V_{RWM} (μA)	Maximum I_R @ V_{RWM} $T_J=175$ (μA)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @ I_{PP} (V)
Uni	Bi		Min.	Max.					
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
SM8S28AG	SM8S28CAG	28.0	31.1	34.4	5.0	10	150	145	45.4
SM8S30AG	SM8S30CAG	30.0	33.3	36.8	5.0	10	150	136	48.4
SM8S33AG	SM8S33CAG	33.0	36.7	40.6	5.0	10	150	124	53.3
SM8S36AG	SM8S36CAG	36.0	40.0	44.2	5.0	10	150	114	58.1
SM8S40AG	SM8S40CAG	40.0	44.4	49.1	5.0	10	150	102	64.5
SM8S43AG	SM8S43CAG	43.0	47.8	52.8	5.0	10	150	95.1	69.4
SM8S45AG	SM8S45CAG	45.0	50.0	55.3	5.0	10	150	90.8	72.7
SM8S48AG	SM8S48CAG	48.0	53.3	58.9	5.0	10	150	85.3	77.4
SM8S51AG	SM8S51CAG	51.0	56.7	62.7	5.0	10	150	80.1	82.4

SM8S54 AG	SM8S54C AG	54.0	60.0	66.3	5.0	10	150	75.8	87.1
SM8S58 AG	SM8S58C AG	58.0	64.4	71.2	5.0	10	150	70.5	93.6
SM8S60 AG	SM8S60C AG	60.0	66.7	73.7	5.0	10	150	68.2	96.8
SM8S64 AG	SM8S64C AG	64.0	71.1	78.6	5.0	10	150	64.1	103.0
SM8S70 AG	SM8S70C AG	70.0	77.8	86.0	5.0	10	150	58.4	113.0
SM8S75 AG	SM8S75C AG	75.0	83.3	92.1	5.0	10	150	54.5	121.0
SM8S78 AG	SM8S78C AG	78.0	86.7	95.8	5.0	10	150	52.4	126.0
SM8S85 AG	SM8S85C 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 μ 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 μ 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.



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