

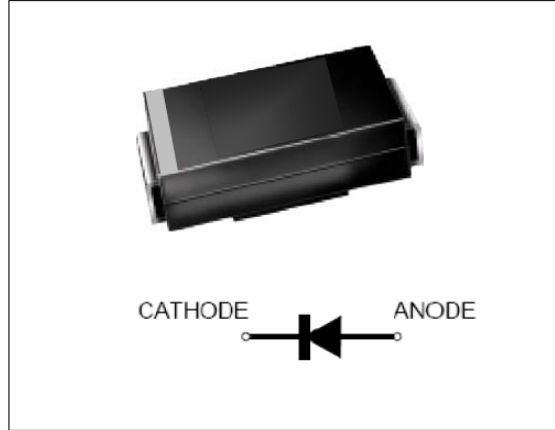
# SZA\*\*\*A Series

## GLASS PASSIVATED JUNCTION Zener voltage regulator diodes

### 1.0 Watt Steady State

#### Feature

- \* 1W SMA
- \* Zener voltage regulator diodes
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* We declare that the material of product compliance with RoHS requirements.
- \* Guarding for over voltage protection
- \* High temperature soldering guaranteed: 260°C/10 seconds at terminals



#### Mechanical Data

**Case:** JEDEC DO-214AC molded plastic

**Terminals:** Axial leads, solderable per MIL-STD-202, Method 208

**Polarity:** Color band denoted cathode except Bipolar

**Mounting Position:** Any

**Weight:** 0.0023 ounce, 0.065 gram

#### 1. Electrical Characteristic

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

We declare that the material of product compliance with ROHS requirements

| RATING   | SYMBOL         | VALUE       | UNITS |
|--|----------------|-------------|-------|
| Steady State Power Dissipation at $T_L=75^\circ\text{C}$ (Note1) | $P_{M(AV)}$    | 1.0         | Watts |
| Z-current  | $I_Z$          | $P_V/V_Z$   | mA    |
| Operating and Storage Temperature Range                          | $T_J, T_{STG}$ | -50 to +150 | °C    |

NOTES:

1. Mounted on Copper Leaf area of 1.57in<sup>2</sup>(40mm<sup>2</sup>).

## SZA\*\*\*A Series

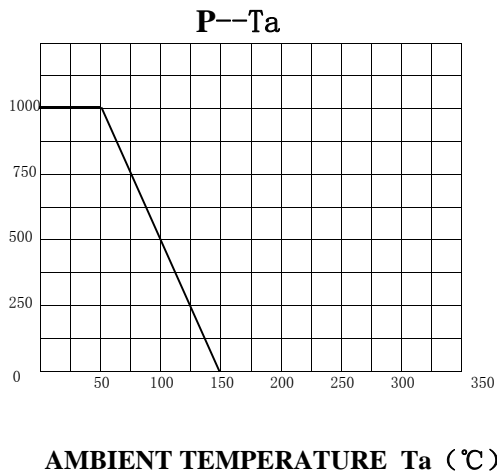
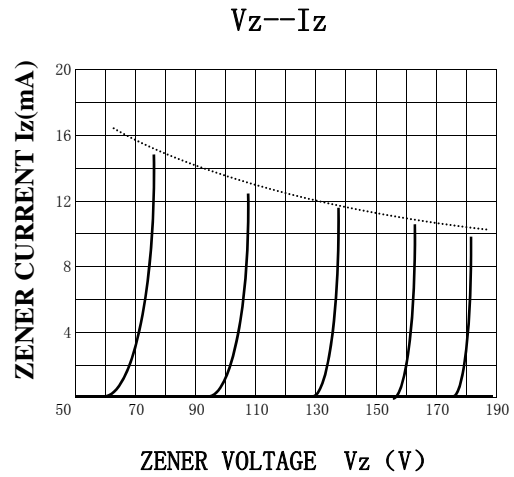
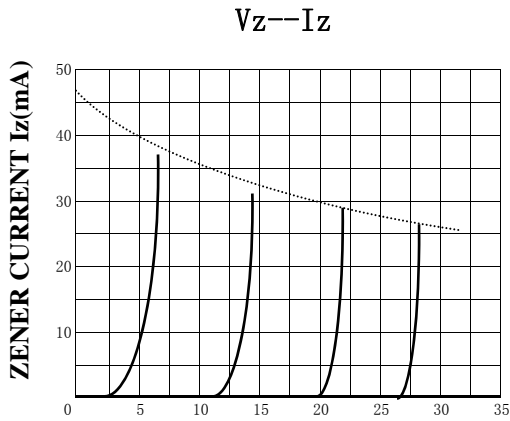
### 2.Product Characteristic

Vz tolerance :  $\pm 5\%$ ; Ta=25°C Vfmax =1.2V @ IF = 200mA P=1 W

| Type    | Device marking code | Zener         | Current | A and B Suffix only |           |      | Leakage Current |                | Maximum Regulator Current2) |
|---------|---------------------|---------------|---------|---------------------|-----------|------|-----------------|----------------|-----------------------------|
|         |                     | Voltage       | I zt    | Z zt @ I zt         | Z zk@ Izk | Izk  | I <sub>R</sub>  | V <sub>R</sub> | IZM @ Tamb =50 °C           |
|         |                     | <u>Vz@Lzt</u> |         |                     |           |      |                 |                |                             |
|         |                     | Volts         | mA      | Ohms                | Ohms      | m A  | uA Max          | Volts          | mA                          |
| SZA5.1A | Z5.1A               | 5.1           | 49      | 7                   | 550       | 1    | 100             | 1.0            | 178                         |
| SZA5.6A | Z5.6A               | 5.6           | 45      | 5                   | 600       |      |                 | 2.0            | 164                         |
| SZA6.2A | Z6.2A               | 6.2           | 41      | 2                   | 700       |      |                 | 3.0            | 146                         |
| SZA6.8A | Z6.8A               | 6.8           | 37      | 4                   | 1300      |      |                 | 4              | 133                         |
| SZA7.5A | Z7.5A               | 7.5           | 34      | 4.5                 | 1300      | 0.5  | 70              | 5              | 121                         |
| SZA8.2A | Z8.2A               | 8.2           | 31      | 5.5                 | 1300      | 0.5  |                 | 6              | 110                         |
| SZA9.1A | Z9.1A               | 9.1           | 28      | 6                   | 1300      | 0.5  |                 | 7              | 100                         |
| SZA10A  | Z10A                | 10            | 25      | 7                   | 1300      | 0.25 | 2               | 7.6            | 91                          |
| SZA11A  | Z11A                | 11            | 23      | 8                   | 1300      |      |                 | 8.4            | 83                          |
| SZA12A  | Z12A                | 12            | 21      | 9                   | 1300      |      |                 | 9.1            | 76                          |
| SZA13A  | Z13A                | 13            | 19      | 10                  | 1300      |      |                 | 9.9            | 69                          |
| SZA15A  | Z15A                | 15            | 17      | 14                  | 1300      |      | 11.4            | 61             |                             |
| SZA16A  | Z16A                | 16            | 15.5    | 16                  | 1300      |      | 12.2            | 57             |                             |
| SZA18A  | Z18A                | 18            | 14      | 20                  | 1300      |      | 13.7            | 50             |                             |
| SZA20A  | Z20A                | 20            | 12.5    | 22                  | 1300      |      | 15.2            | 45             |                             |
| SZA22A  | Z22A                | 22            | 11.5    | 23                  | 1300      |      | 16.7            | 41             |                             |
| SZA24A  | Z24A                | 24            | 10.5    | 25                  | 1300      |      | 18.2            | 38             |                             |
| SZA27A  | Z27A                | 27            | 9.5     | 35                  | 1300      |      | 20.6            | 34             |                             |
| SZA30A  | Z30A                | 30            | 8.5     | 40                  | 1500      |      | 22.8            | 30             |                             |
| SZA33A  | Z33A                | 33            | 7.5     | 45                  | 1500      |      | 25.1            | 27             |                             |
| SZA36A  | Z36A                | 36            | 7       | 50                  | 1500      |      | 27.4            | 25             |                             |
| SZA39A  | Z39A                | 39            | 6.5     | 60                  | 1500      |      | 29.7            | 23             |                             |
| SZA43A  | Z43A                | 43            | 6       | 70                  | 2500      |      | 32.7            | 22             |                             |
| SZA47A  | Z47A                | 47            | 5.5     | 80                  | 2500      |      | 35.8            | 19             |                             |
| SZA51A  | Z51A                | 51            | 5       | 95                  | 2500      |      | 38.8            | 18             |                             |
| SZA56A  | Z56A                | 56            | 4.5     | 110                 | 2500      |      | 42.6            | 16             |                             |
| SZA62A  | Z62A                | 62            | 4       | 125                 | 2500      |      | 47.1            | 14             |                             |
| SZA68A  | Z68A                | 68            | 3.7     | 150                 | 2500      | 51.7 | 13              |                |                             |
| SZA75A  | Z75A                | 75            | 3.3     | 175                 | 2500      | 56   | 12              |                |                             |
| SZA82A  | Z82A                | 82            | 3       | 200                 | 3000      | 62.2 | 11              |                |                             |
| SZA91A  | Z91A                | 91            | 2.8     | 250                 | 3000      | 69.2 | 10              |                |                             |
| SZA100A | Z100A               | 100           | 2.5     | 350                 | 3000      | 76   | 9               |                |                             |
| SZA110A | Z110A               | 110           | 2       | 550                 | 5000      | 83   | 8               |                |                             |
| SZA120A | Z120A               | 120           | 1.5     | 750                 | 5500      | 90   | 7               |                |                             |
| SZA130A | Z130A               | 130           | 1       | 900                 | 6000      | 98   | 6               |                |                             |
| SZA150A | Z150A               | 150           | 1       | 1200                | 6500      | 113  | 6               |                |                             |
| SZA160A | Z160A               | 160           | 1       | 1350                | 7000      | 120  | 6               |                |                             |
| SZA180A | Z180A               | 180           | 1       | 1650                | 8500      | 135  | 5               |                |                             |
| SZA200A | Z200A               | 200           | 1       | 1950                | 10000     | 150  | 4               |                |                             |

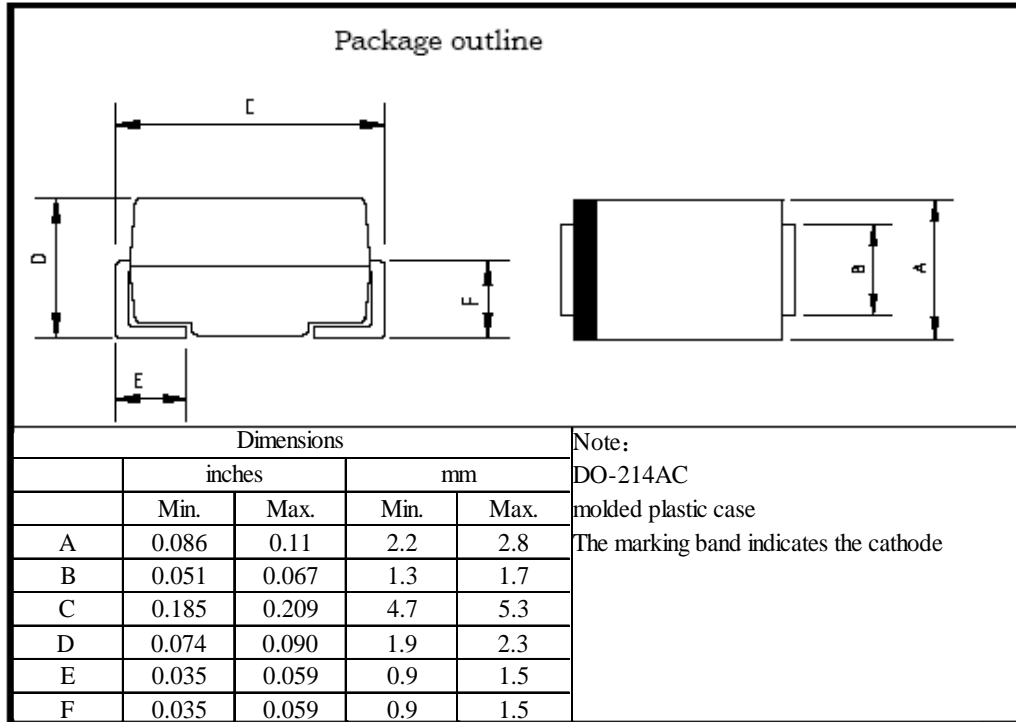
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### 3.Characteristic Curves



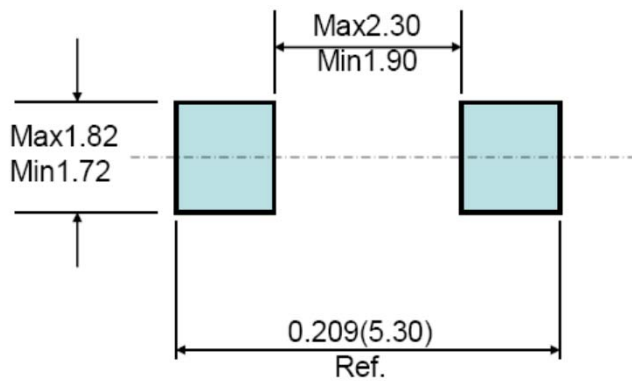
## SZA\*\*\*A Series

### 4.Package Dimensions in inches and (millimeters)



### Mounting Pad Layout

---SMA



## SZA\*\*\*A Series

### 5. Update Record

| 版次 | 更新记录      | 更新作者 | 更新日期         |
|----|-----------|------|--------------|
| 1  | 第一版       | 周杰   | 2010. 12. 28 |
| 2  | 增加产品型号    | 周杰   | 2011. 03. 28 |
| 3  | 增加产品型号    | 周杰   | 2012. 02. 09 |
| 4  | 调整各型号的漏电流 | 周杰   | 2013. 07. 10 |
| 5  | 增加低压系列    | 谭志伟  | 2017. 12. 28 |
| 6  | 修订D尺寸     | 谭志伟  | 2018. 6. 22  |
| 7  | 更新IZK标注   | 谭志伟  | 2020. 8. 17  |

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