

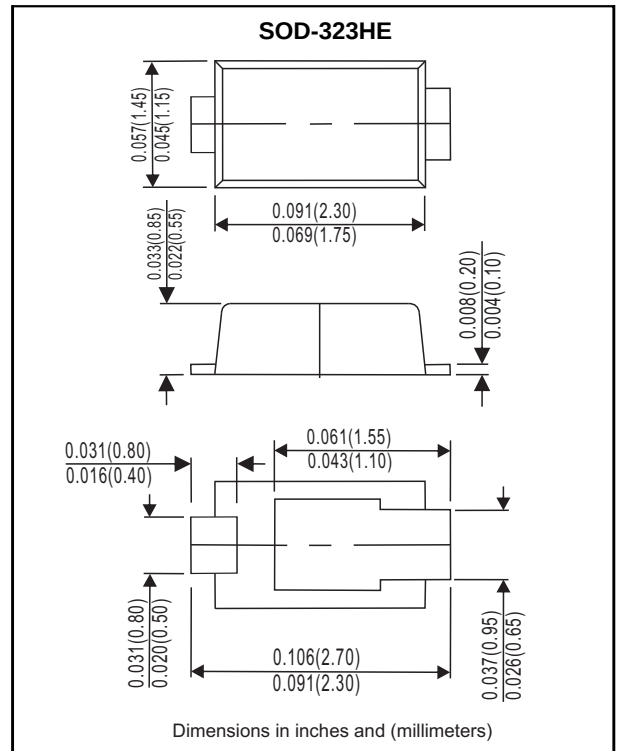
### Features

- Standard schottky Rectifier
- Low forward voltage drop
- High temperature soldering guaranteed:  
260°C /10 seconds
- RoHS compliant
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

### Mechanical data

- Case: SOD-323HE
- Case material: molding compound meets  
UL 94V-0 flammability rating
- Polarity: color band denotes cathode end

### Package outline



### Maximum Ratings ( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

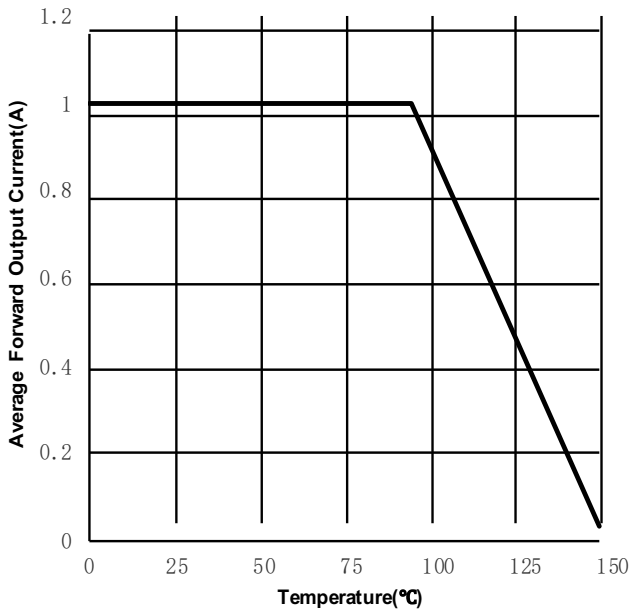
| Parameter                                                                            | Symbol      | Value       | Unit               |
|--------------------------------------------------------------------------------------|-------------|-------------|--------------------|
| Maximum Repetitive Peak Reverse Voltage                                              | $V_{RRM}$   | 60          | V                  |
| Maximum RMS Voltage                                                                  | $V_{RMS}$   | 48          |                    |
| Maximum DC Blocking Voltage                                                          | $V_{DC}$    | 60          |                    |
| Average Forward Rectified Current                                                    | $I_{F(AV)}$ | 1           | A                  |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | $I_{FSM}$   | 25          | A                  |
| Operating Junction Temperature Range                                                 | $T_J$       | -55 to +150 | $^{\circ}\text{C}$ |
| Storage Temperature Range                                                            | $T_{STG}$   | -55 to +150 | $^{\circ}\text{C}$ |

### Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

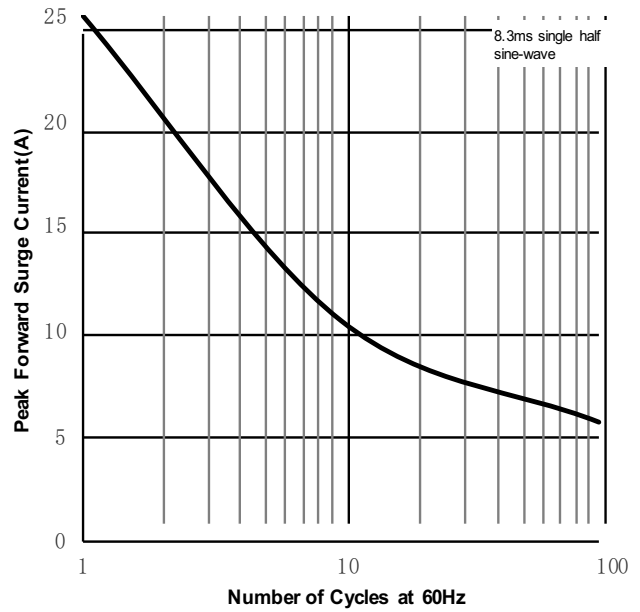
| Parameter                          | Test Conditions           | Symbol          | Value |      | Unit                 |
|------------------------------------|---------------------------|-----------------|-------|------|----------------------|
|                                    |                           |                 | Typ.  | Max. |                      |
| Forward Voltage@ $I_F=0.7\text{A}$ | $T_A=25^{\circ}\text{C}$  | $V_F$           | 0.58  | 0.62 | V                    |
|                                    | $T_A=125^{\circ}\text{C}$ |                 | 0.48  | 0.52 |                      |
| Forward Voltage@ $I_F=1\text{A}$   | $T_A=25^{\circ}\text{C}$  |                 | 0.65  | 0.7  |                      |
|                                    | $T_A=125^{\circ}\text{C}$ |                 | 0.54  | 0.58 |                      |
| Reverse Current @ $V_{RRM}$        | $T_A=25^{\circ}\text{C}$  | $I_R$           | 5     | 100  | $\mu\text{A}$        |
|                                    | $T_A=125^{\circ}\text{C}$ |                 | 100   | 600  |                      |
| Typical Thermal Resistance         |                           | $R_{\theta JA}$ | 103   |      | $^{\circ}\text{C/W}$ |

### Rating and characteristic curves

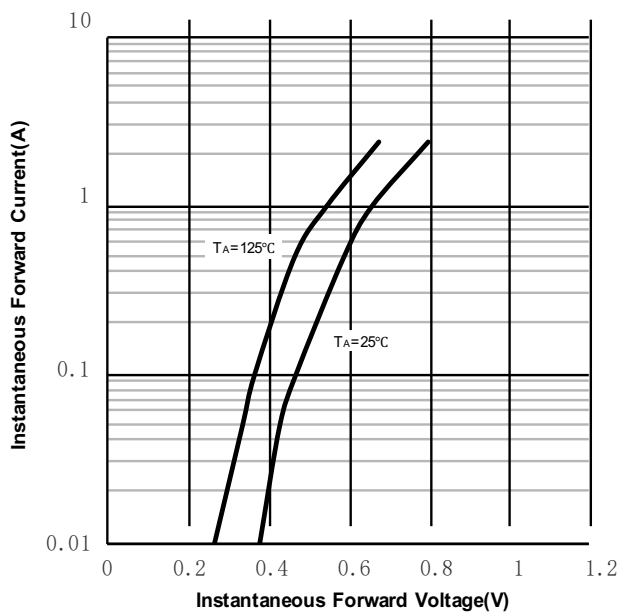
**FIG.1: Forward Output Current Derating Curve**



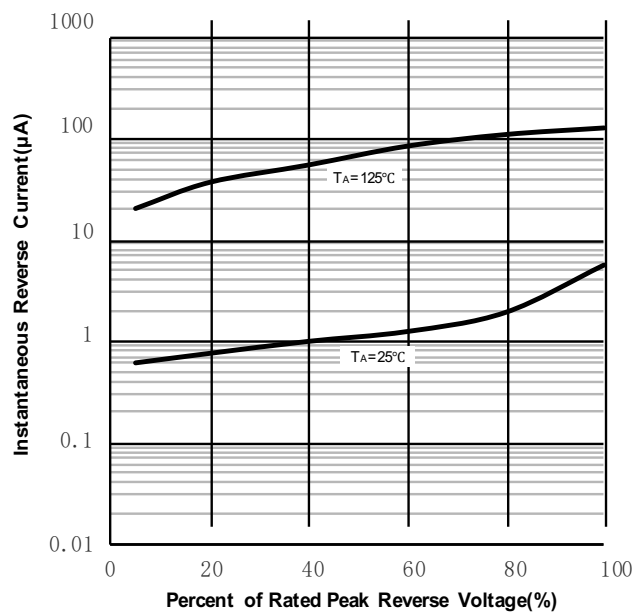
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**



**FIG.4: Typical Reverse Characteristics**



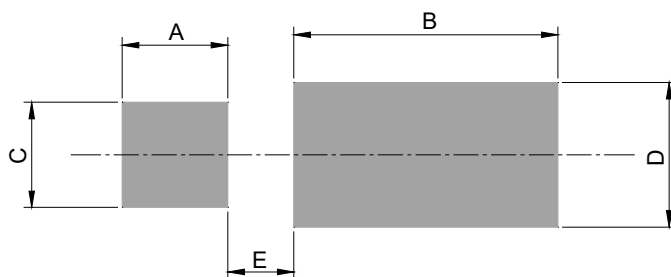
### Pinning information

| Pin                                           | Simplified outline                                                                 | Symbol                                                                              |
|-----------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Uni-Directional<br>Pin1 cathode<br>Pin2 anode |  |  |

### Marking

| Type number   | Marking code |
|---------------|--------------|
| SS16-NHT-D-Q1 | 16           |

### Suggested solder pad layout



Dimensions in inches and (millimeters)

| PACKAGE   | A            | B            | C            | D            | E            |
|-----------|--------------|--------------|--------------|--------------|--------------|
| SOD-323HE | 0.032 (0.80) | 0.079 (2.00) | 0.032 (0.80) | 0.043 (1.10) | 0.020 (0.50) |