

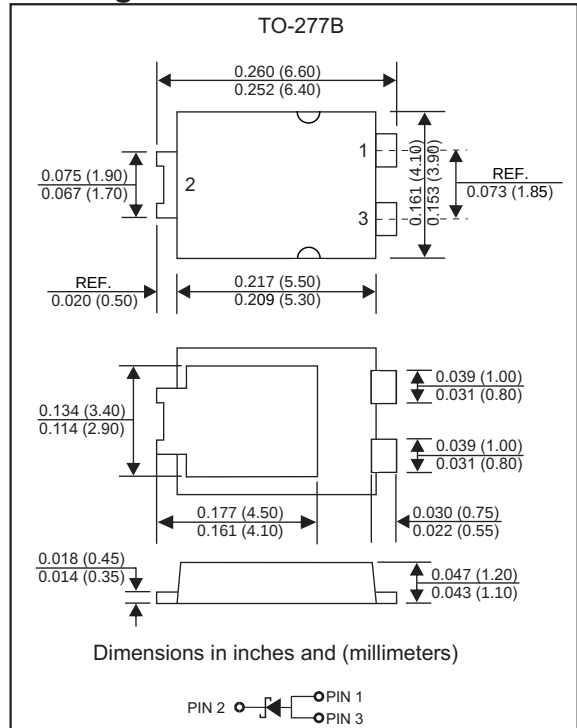
### Features

- Ideal for automated placement
- Low power losses
- High forward surge capability
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

### Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : TO-277B ,molded Plastic
- Terminals: Tin plated leads, solderable per  
J-STD-002 and JESD22-B102
- Marking:SL10200

### Package outline



### Maximum ratings (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER                                                                                       | SYMBOL    | VALUE     | UNIT                 |
|-------------------------------------------------------------------------------------------------|-----------|-----------|----------------------|
| Repetitive Peak Reverse Voltage                                                                 | $V_{RRM}$ | 200       | V                    |
| Average Rectified Output Current<br>@ 60Hz -sine wave, R- load                                  | $I_O$     | 10        | A                    |
| Forward Surge Current (Non-repetitive)<br>@ 60Hz Half-sine wave,1 cycle, $T_A=25^\circ\text{C}$ | $I_{FSM}$ | 200       | A                    |
| Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$             | $I^2t$    | 166       | $\text{A}^2\text{s}$ |
| Junction capacitance @4V,1MHz                                                                   | $C_j$     | 164       | pF                   |
| Storage Temperature                                                                             | $T_{stg}$ | -55 ~+175 | $^\circ\text{C}$     |
| Operating Junction Temperature                                                                  | $T_j$     | -55 ~+175 | $^\circ\text{C}$     |

### Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER            | SYMBOL   | TEST CONDITIONS                              | Min | Typ  | Max  | UNIT |
|----------------------|----------|----------------------------------------------|-----|------|------|------|
| Peak Forward Voltage | $V_{FM}$ | $I_{FM}=10.0\text{A}, T_j=25^\circ\text{C}$  | -   | 0.82 | 0.90 | V    |
|                      |          | $I_{FM}=10.0\text{A}, T_j=125^\circ\text{C}$ | -   | 0.70 | 0.85 |      |
| Leakage Current      | $I_R$    | $V_R=200\text{V}, T_j=25^\circ\text{C}$      | -   | -    | 0.1  | mA   |
|                      |          | $V_R=200\text{V}, T_j=125^\circ\text{C}$     | -   | -    | 20   |      |

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

### Thermal Characteristics

| PARAMETER                           | SYMBOL           | VALUE | UNIT               |
|-------------------------------------|------------------|-------|--------------------|
| Thermal Resistance Junction to Case | $R_{\theta J-C}$ | 5     | $^\circ\text{C/W}$ |

## Rating and characteristic curves

FIG.1:  $I_o$ - $T_c$  Curve

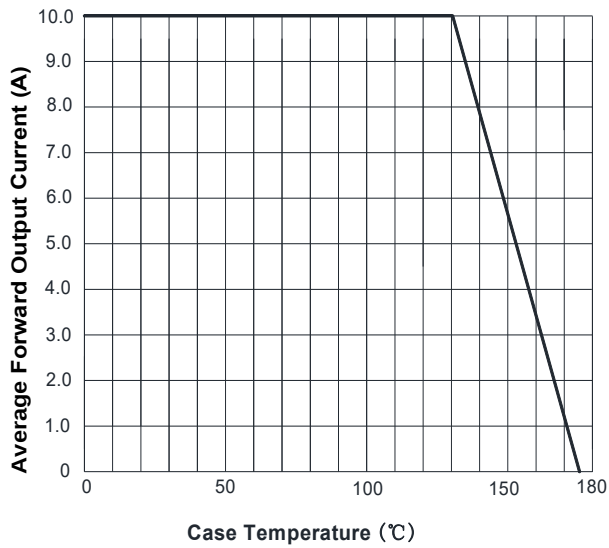


FIG2: Surge Forward Current Capability

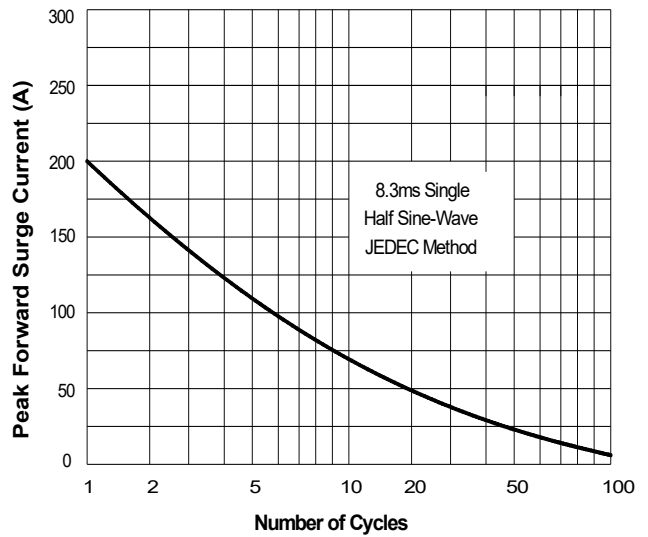


FIG3: Forward Voltage

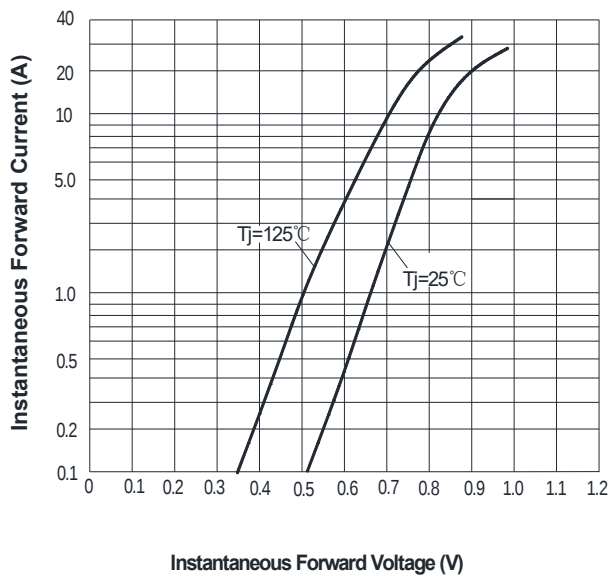
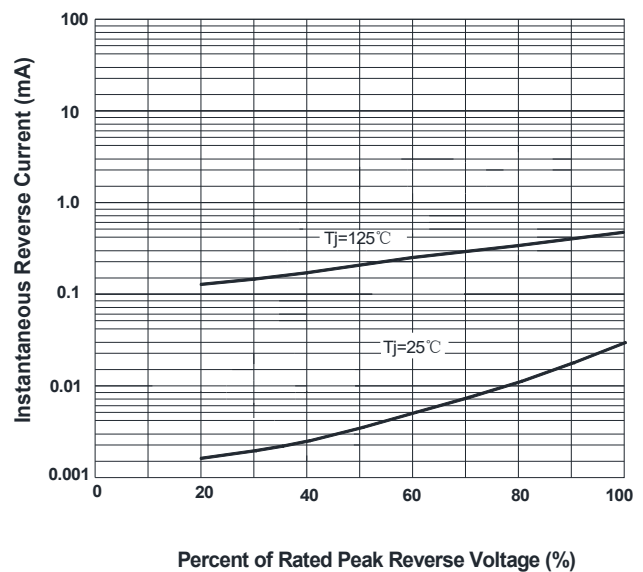
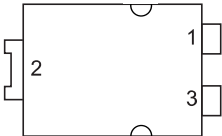


FIG.4: Instantaneous Reverse Characteristics



### Pinning information

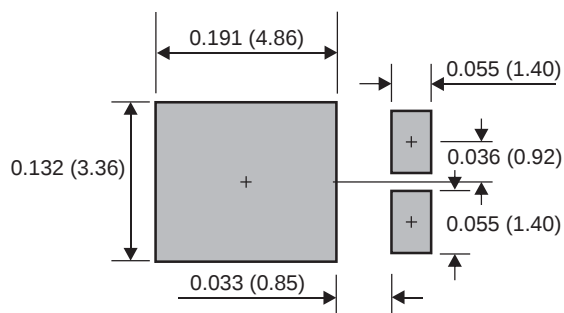
| Pin                                      | Simplified outline                                                                | Symbol                                                                              |
|------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Pin2 cathode<br>Pin1 anode<br>Pin3 anode |  |  |

### Marking

| Type number   | Marking code |
|---------------|--------------|
| SL10200Y-T-Q1 | SL10200      |

### Suggested solder pad layout

TO-277B



Dimensions in inches and (millimeters)