

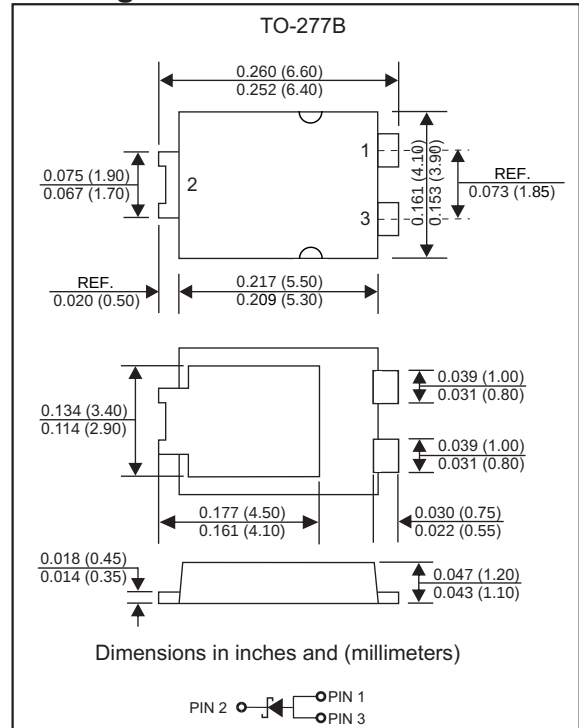
### Features

- Ideal for automated placement
- Low power losses
- High forward surge capability
- Compliant to Halogen-free

### 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:SL10150

### Package outline



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

| PARAMETER                                                                                          | SYMBOL    | VALUE      | UNIT                 |
|----------------------------------------------------------------------------------------------------|-----------|------------|----------------------|
| Repetitive Peak Reverse Voltage                                                                    | $V_{RRM}$ | 150        | 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, $T_A=25^{\circ}\text{C}$ | $I_{FSM}$ | 250        | A                    |
| Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_J=25^{\circ}\text{C}$              | $I^2t$    | 259        | $\text{A}^2\text{s}$ |
| 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      | $V_{FM}$ | $I_{FM}=10.0\text{A}, T_J=25^{\circ}\text{C}$  | -   | 0.78 | 0.82 | V    |
|                           |          | $I_{FM}=10.0\text{A}, T_J=125^{\circ}\text{C}$ | -   | 0.66 | 0.70 |      |
| Reverse Breakdown Voltage | $V_{BR}$ | $I_R=0.1\text{mA}$                             | 150 | -    | -    | V    |
| Leakage Current           | $I_R$    | $V_R=150\text{V}, T_J=25^{\circ}\text{C}$      | -   | -    | 0.1  | mA   |
|                           |          | $V_R=150\text{V}, T_J=125^{\circ}\text{C}$     | -   | -    | 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 | $R_{\theta J-C}$ | 8     | $^{\circ}\text{C/W}$ |

## Rating and characteristic curves

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

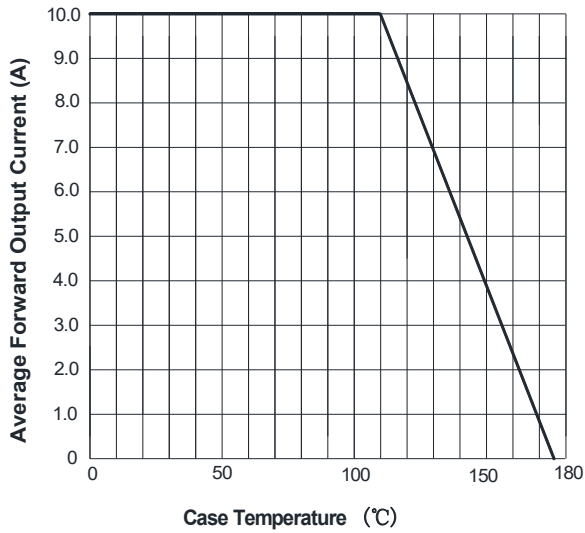


FIG2: Surge Forward Current Capability

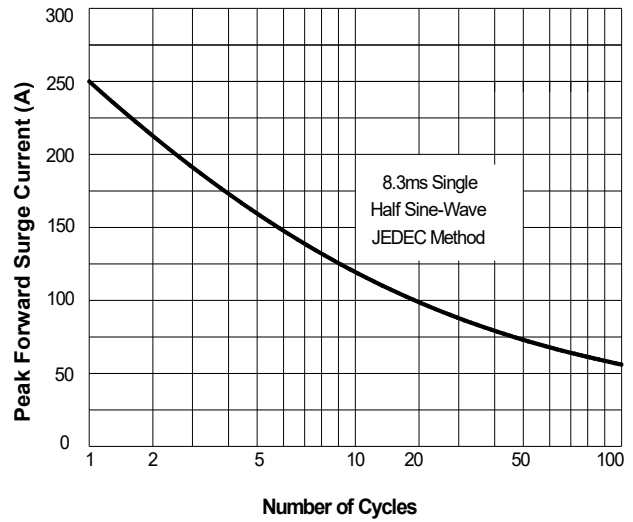


FIG3: Forward Voltage

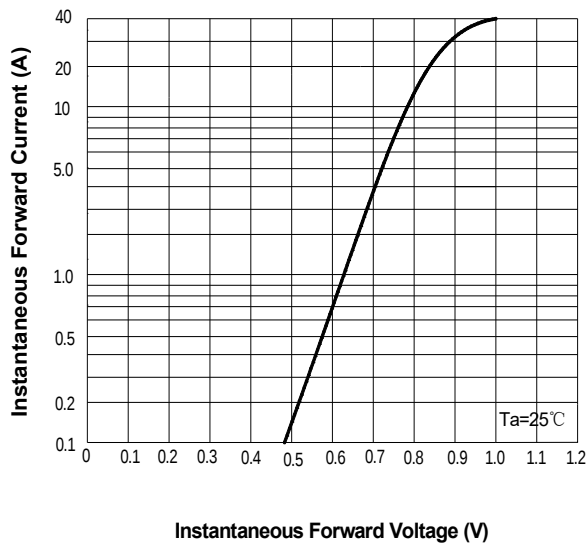
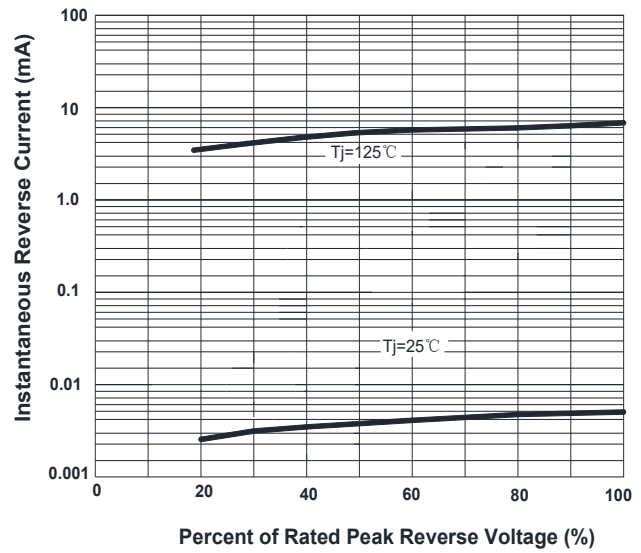
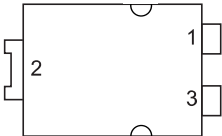


FIG.4: Instantaneous Reverse Characteristics



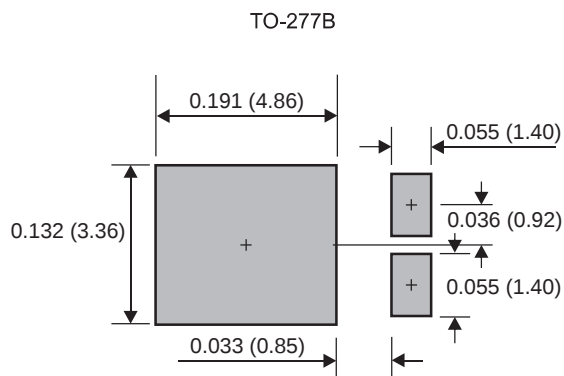
### Pinning information

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

### Marking

| Type number | Marking code |
|-------------|--------------|
| SL10150Y-T  | SL10150      |

### Suggested solder pad layout



Dimensions in inches and (millimeters)