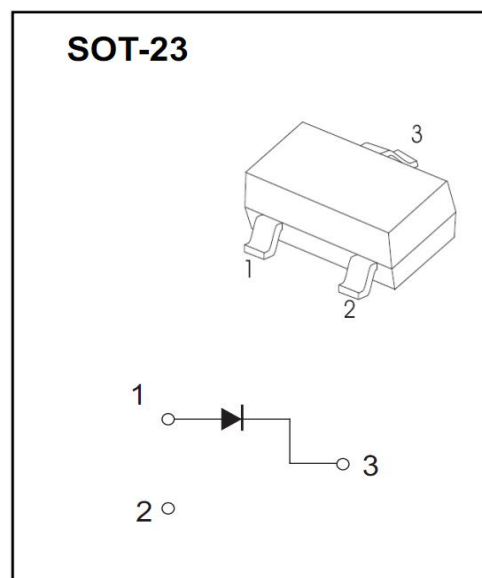
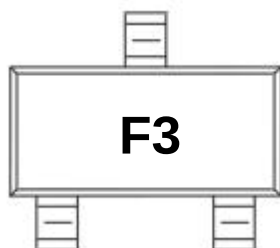


# 1SS193 Switching Diodes

## FEATURES:

- LOW Forward Voltage
- Fast Reverse Recovery Time

## MARKING:



Solid dot = Green molding compound device, if none, the normal device.

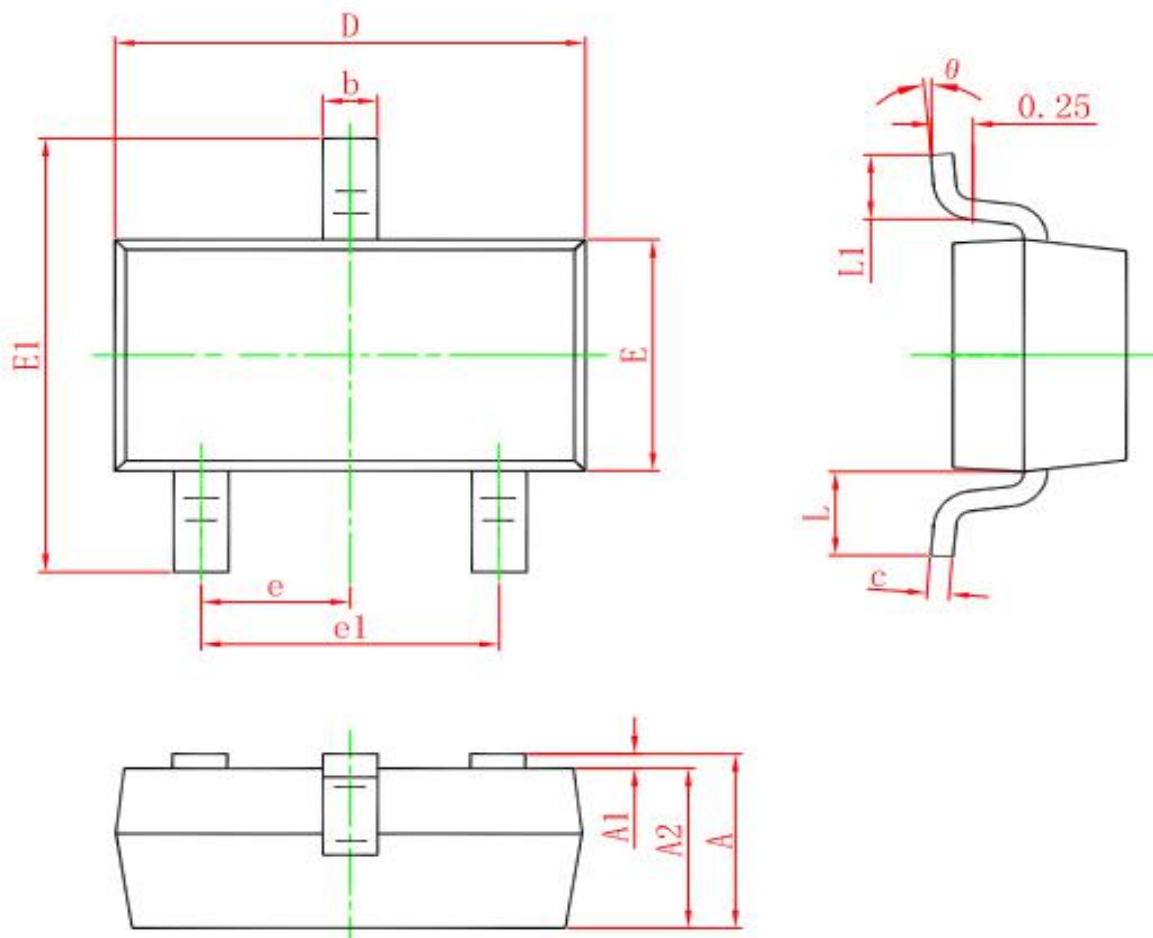
Maximum ratings (@Ta=25°C)

| Parameter                                          | Symbol | Limit    | Unit |
|----------------------------------------------------|--------|----------|------|
| Non-Repetitive Peak Reverse Voltage                | VRM    | 85       | V    |
| DC Blocking Voltage                                | VR     | 80       | V    |
| Forward Continuous Current                         | IFM    | 300      | mA   |
| Average Rectified Output Current                   | IO     | 100      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | IFSM   | 2.0      | A    |
| Power Dissipation                                  | PD     | 150      | mW   |
| Thermal Resistance from Junction to Ambient        | RθJA   | 833      | °C/W |
| Junction Temperature                               | TJ     | 150      | °C   |
| Storage Temperature Range                          | TSTG   | -55~+150 | °C   |

Electrical Characteristics (@Ta=25°C)

| Parameter                     | Symbol          | Test Condition         | Min | Typ  | Max | Unit |
|-------------------------------|-----------------|------------------------|-----|------|-----|------|
| Reverse breakdown voltage     | V(BR)           | IR=100μA               | 80  |      |     | V    |
| Forward voltage               | VF1             | IF=1mA                 |     | 0.61 |     | V    |
|                               | VF2             | IF=10mA                |     | 0.74 |     | V    |
|                               | VF3             | IF=100mA               |     | 0.92 | 1.2 | V    |
| Reverse current               | IR1             | VR=30V                 |     |      | 0.1 | uA   |
|                               | IR2             | VR=80V                 |     |      | 0.5 | uA   |
| Capacitance between terminals | CT              | VR=0V, f=1MHz          |     | 1    | 3.0 | PF   |
| Reverse recovery time         | t <sub>rr</sub> | IF=IR=10mA, Irr=0.1×IR |     | 1.6  | 4.0 | nS   |

**SOT-23 PACKAGE OUTLINE DIMENSIONS**



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.050 | 0.035                | 0.041 |
| b      | 0.300                     | 0.500 | 0.012                | 0.020 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.800                     | 3.000 | 0.110                | 0.118 |
| E      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1     | 2.250                     | 2.550 | 0.089                | 0.100 |
| e      | 0.950 TYP.                |       | 0.037 TYP.           |       |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.550 REF.                |       | 0.022 REF.           |       |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## Typical Characteristics

