

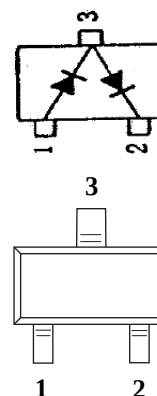


## 1SS362 Switching Diodes

### ■ Features

- Fast Switching Speed
- Low Forward Voltage
- Fast Reverse Recovery Time
- Small Total Capacitance

Marking : C3



SOF-523

### ■ Absolute Maximum Ratings $T_a = 25^{\circ}\text{C}$

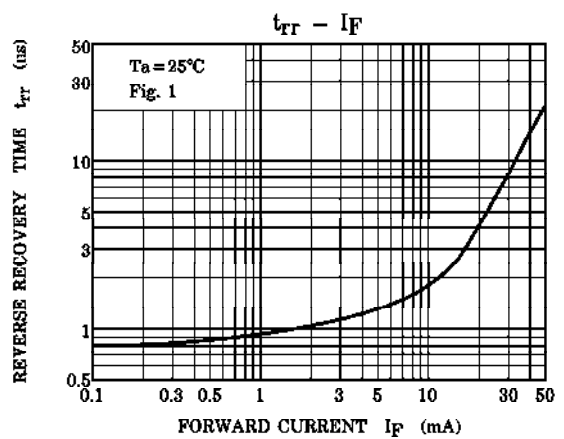
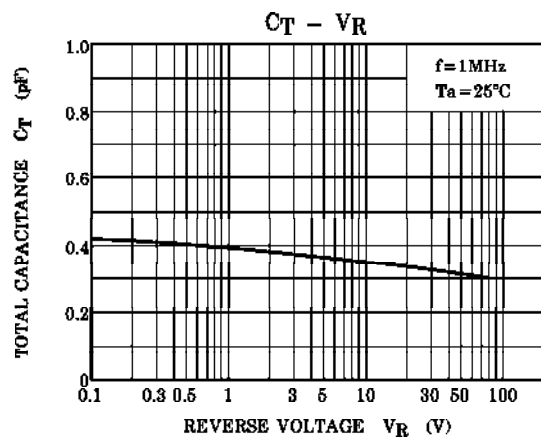
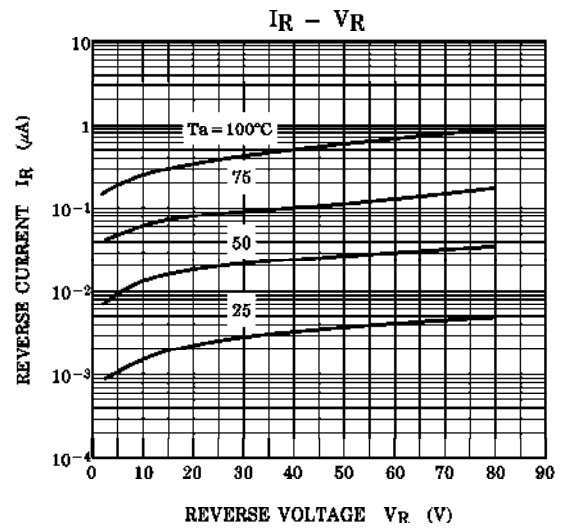
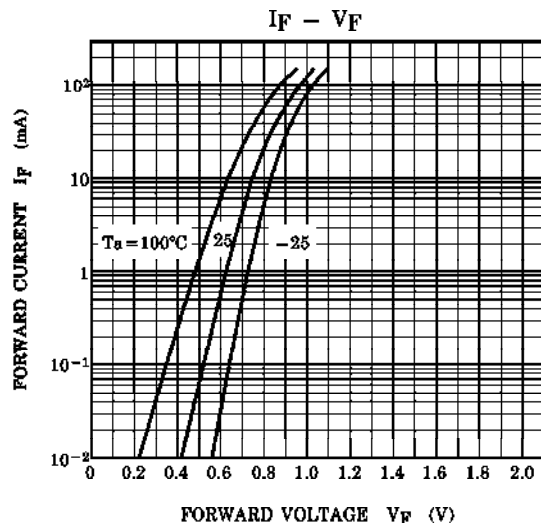
| Parameter                                    | Symbol    | Rating     | Unit               |
|----------------------------------------------|-----------|------------|--------------------|
| Peak Reverse Voltage                         | $V_{RM}$  | 85         | V                  |
| Reverse Voltage                              | $V_R$     | 80         |                    |
| Average Rectified Output Current             | $I_o$     | 80         | mA                 |
| Forward Continuous Current                   | $I_{FM}$  | 240        |                    |
| Peak Forward Surge Current @ $t=10\text{ms}$ | $I_{FSM}$ | 1          | A                  |
| Power Dissipation                            | $P_d$     | 100        | mW                 |
| Junction Temperature                         | $T_J$     | 125        | $^{\circ}\text{C}$ |
| Storage Temperature range                    | $T_{stg}$ | -55 to 125 |                    |

### ■ Electrical Characteristics $T_a = 25^{\circ}\text{C}$

| Parameter                       | Symbol   | Test Conditions                    | Min | Typ  | Max | Unit          |
|---------------------------------|----------|------------------------------------|-----|------|-----|---------------|
| Reverse breakdown voltage       | $V_R$    | $I_R = 100\mu\text{A}$             | 80  |      |     | V             |
| Forward voltage                 | $V_{F1}$ | $I_F = 1\text{mA}$                 |     | 0.63 |     |               |
|                                 | $V_{F2}$ | $I_F = 10\text{mA}$                |     | 0.75 |     |               |
|                                 | $V_{F3}$ | $I_F = 100\text{mA}$               |     |      | 1.2 |               |
| Reverse voltage leakage current | $I_{R1}$ | $V_R = 30\text{V}$                 |     |      | 0.1 | $\mu\text{A}$ |
|                                 | $I_{R2}$ | $V_R = 80\text{V}$                 |     |      | 0.5 |               |
| Junction capacitance            | $C_j$    | $V_R = 0\text{V}, f = 1\text{MHz}$ |     |      | 3   | pF            |
| Reverse recovery time           | $t_{rr}$ | $I_F = 10\text{mA}$                |     |      | 4   | ns            |

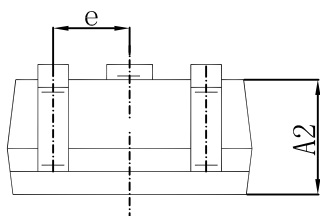
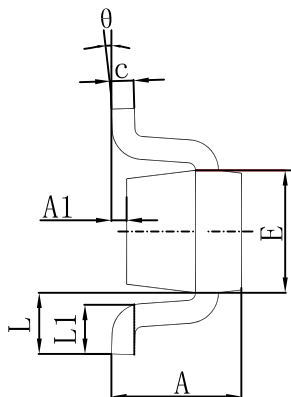
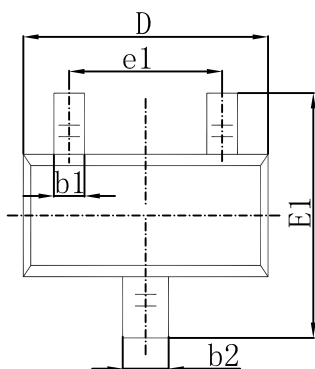


## ■ Typical Characteristics



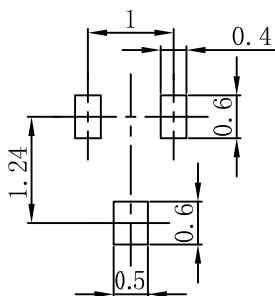


## SOT-523 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | 0.700                     | 0.900 | 0.028                | 0.035 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.700                     | 0.800 | 0.028                | 0.031 |
| b1     | 0.150                     | 0.250 | 0.006                | 0.010 |
| b2     | 0.250                     | 0.350 | 0.010                | 0.014 |
| c      | 0.100                     | 0.200 | 0.004                | 0.008 |
| D      | 1.500                     | 1.700 | 0.059                | 0.067 |
| E      | 0.700                     | 0.900 | 0.028                | 0.035 |
| E1     | 1.450                     | 1.750 | 0.057                | 0.069 |
| e      | 0.500 TYP.                |       | 0.020 TYP.           |       |
| e1     | 0.900                     | 1.100 | 0.035                | 0.043 |
| L      | 0.400 REF.                |       | 0.016 REF.           |       |
| L1     | 0.260                     | 0.460 | 0.010                | 0.018 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## SOT-523 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.