

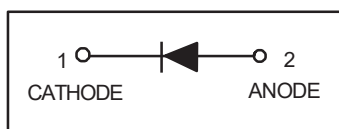
## 1.0Amp Standard Surface Mounted Rectifiers

### Description

Type OVDAX series are 2-pin SOD123FL package 1.0Amp Standard Surface Mounted Rectifiers.

### Features

- ✧ Reverse voltage from 50V to 1000V
- ✧ Forward current : 1A
- ✧ Low reverse leakage
- ✧ High forward surge current capability



Circuit Diagram

### Applications

- ✧ Circuits for Constant Voltage
- ✧ Constant Current, Waveform clipper
- ✧ Surge absorber



SOD123FL

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                 | SYMBOLS         | OVDAX1      | OVDAX2 | OVDAX3 | OVDAX4 | OVDAX5 | OVDAX6 | OVDAX7 | UNITS              |
|-----------------------------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------------------|
| Maximum repetitive peak reverse voltage                                                                   | $V_{RRM}$       | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V                  |
| Maximum RMS voltage                                                                                       | $V_{RMS}$       | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V                  |
| Maximum DC blocking voltage                                                                               | $V_{DC}$        | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V                  |
| Maximum average forward rectified current at $T_L=100^\circ\text{C}$                                      | $I_{(AV)}$      | 1.0         |        |        |        |        |        |        | A                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                        | $I_{FSM}$       | 30.0        |        |        |        |        |        |        | A                  |
| Maximum instantaneous forward voltage at 1.0A                                                             | $V_F$           | 1.0         |        |        |        |        |        |        | V                  |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$ | $I_R$           | 2.0<br>200  |        |        |        |        |        |        | $\mu\text{A}$      |
| Typical junction capacitance (Note1)                                                                      | $C_J$           | 18.0        |        |        |        |        |        |        | pF                 |
| Typical thermal resistance                                                                                | $R_{\theta JA}$ | 85.0        |        |        |        |        |        |        | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                          | $T_J, T_{STG}$  | -55 to +150 |        |        |        |        |        |        | $^\circ\text{C}$   |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

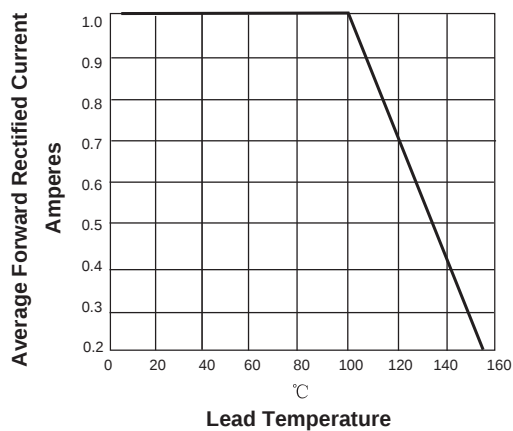


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

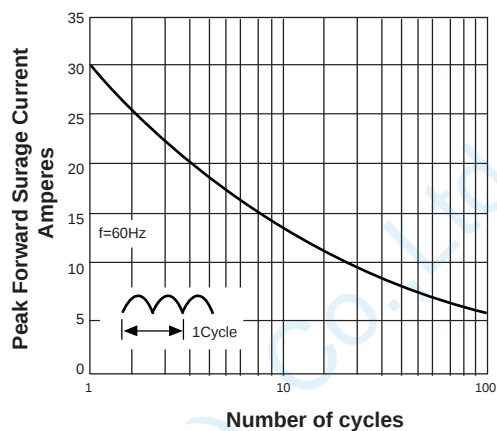


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

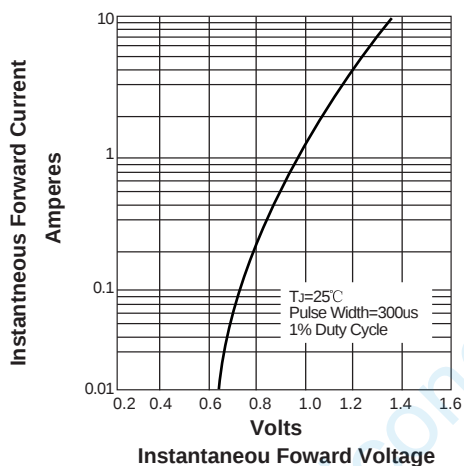
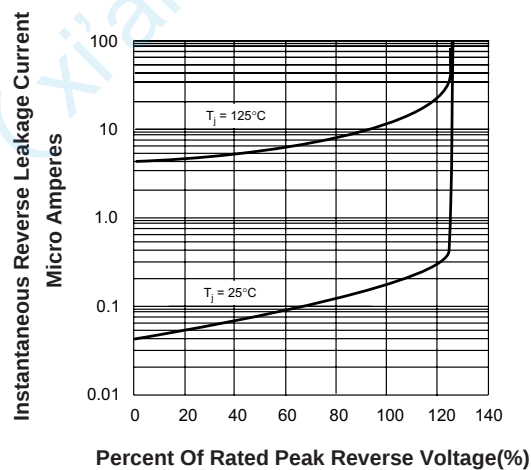
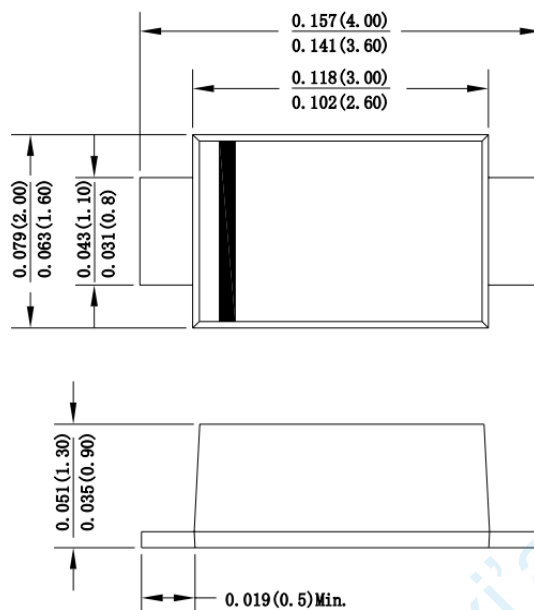


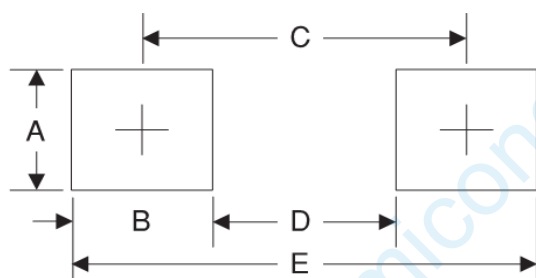
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



## Package Information



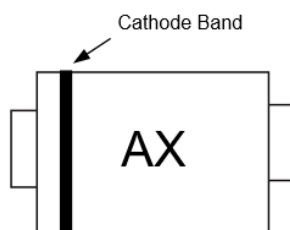
## Recommend PCB Layout



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A      | 1.2       | 0.048       |
| B      | 1.15      | 0.045       |
| C      | 3.10      | 0.122       |
| D      | 1.95      | 0.077       |
| E      | 4.25      | 0.167       |

Notes: This PCB Layout Is For Reference Purposes Only

## Marking



X: Voltage Code

- 1 --- VRRM=50V
- 2 --- VRRM=100V
- 3 --- VRRM=200V
- 4 --- VRRM=400V
- 5 --- VRRM=600V
- 6 --- VRRM=800V
- 7 --- VRRM=1000V

## Ordering Information

| Part number  | Material | Type | Reel size | MOQ     | MOQ/internal box | MOQ/carton          |
|--------------|----------|------|-----------|---------|------------------|---------------------|
| OVDAX Series | GREEN    | T/R  | 7 inch    | 3k/reel | 5reel= 15k/box   | 10boxes=150k/carton |