



## RS1010FL

DIODE

### SURFACE MOUNT FAST DIODE

#### DESCRIPTION

The UTC **RS1010FL** is a surface mount fast diode, it uses UTC's advanced technology to provide customers with fast switching and low reverse leakage, etc.

The UTC **RS1010FL** is suitable for surface mounted applications.

#### FEATURES

- \* Fast switching
- \* Low profile package
- \* Low reverse leakage

#### SYMBOL



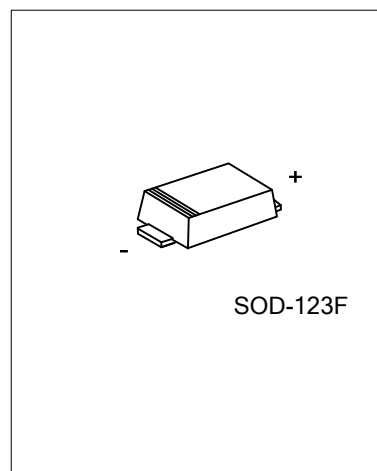
#### ORDERING INFORMATION

| Ordering Number  | Package  | Pin Assignment |   | Packing   |
|------------------|----------|----------------|---|-----------|
|                  |          | 1              | 2 |           |
| RS1010FLG-CA2F-R | SOD-123F | K              | A | Tape Reel |

Note: Pin Assignment: A: Anode K: Cathode

|                  |                                   |
|------------------|-----------------------------------|
| RS1010FLG-CA2F-R |                                   |
| (1)Packing Type  | (1) R: Tape Reel                  |
| (2)Package Type  | (2) CA2F: SOD-123F                |
| (3)Green Package | (3) G: Halogen Free and Lead Free |

#### MARKING



SOD-123F

## ■ ABSOLUTE MAXIMUM RATINGS

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                                                                                        | SYMBOL      | RATINGS  | UNIT               |
|--------------------------------------------------------------------------------------------------|-------------|----------|--------------------|
| Repetitive Peak Reverse Voltage                                                                  | $V_{RRM}$   | 1000     | V                  |
| RMS Voltage                                                                                      | $V_{RMS}$   | 700      | V                  |
| DC Blocking Voltage                                                                              | $V_{DC}$    | 1000     | V                  |
| Average Forward Rectified Current Derate above $T_C=110^{\circ}\text{C}$                         | $I_{F(AV)}$ | 1.0      | A                  |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$   | 30       | A                  |
| Junction Temperature                                                                             | $T_J$       | -55~+150 | $^{\circ}\text{C}$ |
| Storage Temperature                                                                              | $T_{STG}$   | -55~+150 | $^{\circ}\text{C}$ |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

## ■ THERMAL DATA

| PARAMETER           | SYMBOL        | RATINGS | UNIT                 |
|---------------------|---------------|---------|----------------------|
| Junction to Ambient | $\theta_{JA}$ | 200     | $^{\circ}\text{C/W}$ |

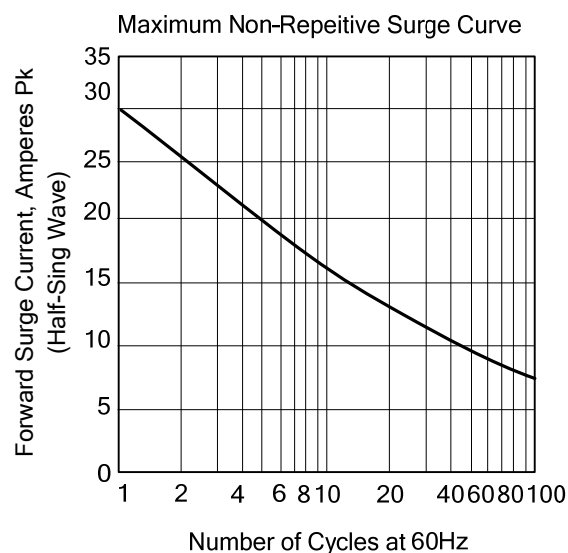
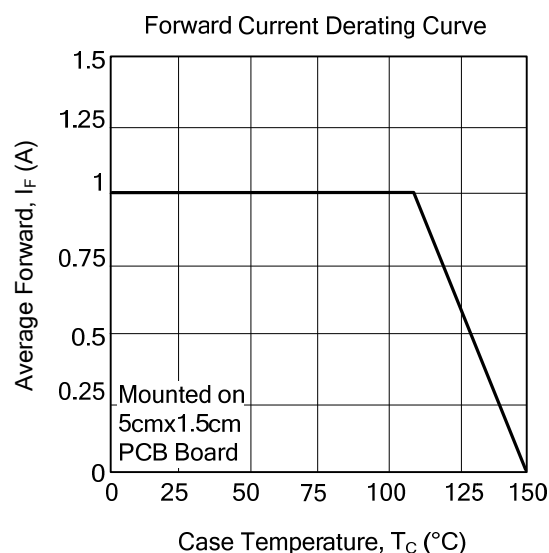
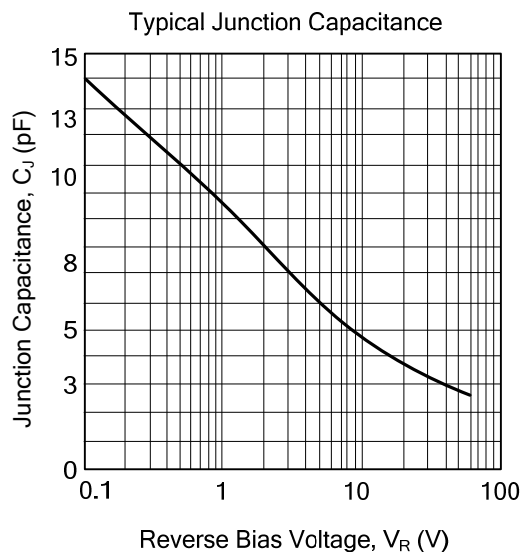
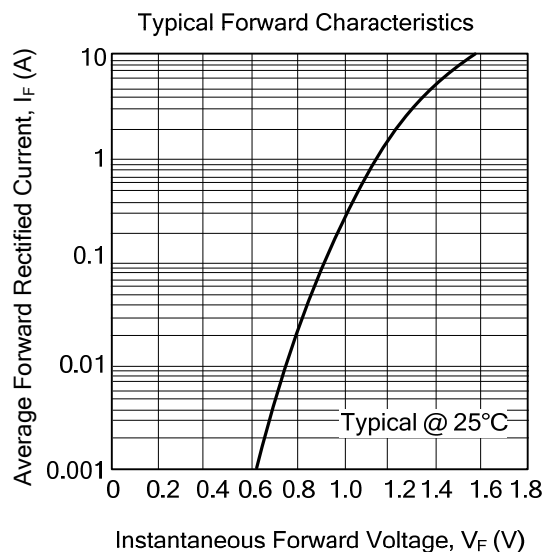
## ■ ELECTRICAL CHARACTERISTICS

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                                       | SYMBOL   | TEST CONDITIONS                                             | MIN | TYP | MAX  | UNIT          |
|-------------------------------------------------|----------|-------------------------------------------------------------|-----|-----|------|---------------|
| Instantaneous Forward Voltage                   | $V_F$    | $I_F=0.7\text{A}$                                           |     |     | 1.15 | V             |
|                                                 |          | $I_F=1.0\text{A}$                                           |     |     | 1.3  | V             |
| DC Reverse Current at Rated DC Blocking Voltage | $I_R$    | $T_J=25^{\circ}\text{C}$                                    |     |     | 1.0  | $\mu\text{A}$ |
|                                                 |          | $T_J=125^{\circ}\text{C}$                                   |     |     | 50   | $\mu\text{A}$ |
| Reverse Recovery Time                           | $t_{rr}$ | $I_F=0.5\text{A}$ , $I_R=1\text{A}$ , $I_{rr}=0.25\text{A}$ |     |     | 500  | nS            |
| Junction Capacitance                            | $C_J$    | $V_R=4\text{V}$ , $f=1\text{MHz}$                           |     | 9   |      | pF            |

## ■ TYPICAL CHARACTERISTICS



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