



# RS1002FL

**DIODE**

## SURFACE MOUNT FAST DIODE

### DESCRIPTION

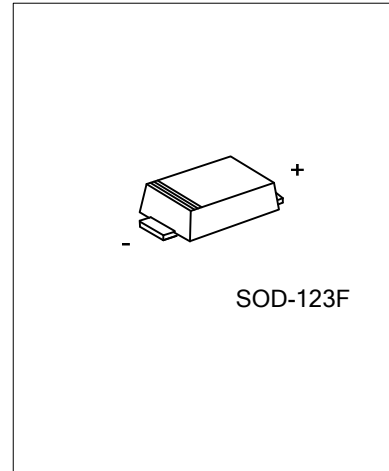
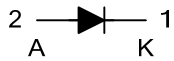
The UTC **RS1002FL** is a surface mount fast diode, it uses UTC's advanced technology to provide customers with fast switching and low reverse leakage, etc.

The UTC **RS1002FL** 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 |           |
| RS1002FLG-CA2F-R | SOD-123F | K              | A | Tape Reel |

Note: Pin Assignment: A: Anode K: Cathode

|   |  |
|---|--|
| <p>RS1002FLG-CA2F-R</p> <p>(1)Packing Type<br/>(2)Package Type<br/>(3)Green Package</p> | <p>(1) R: Tape Reel<br/>(2) CA2F: SOD-123F<br/>(3) G: Halogen Free and Lead Free</p> |
|---|--|

### MARKING



### ■ 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  | $V_{RRM}$ | 200      | V    |
| RMS Voltage  | $V_{RMS}$ | 140      | V    |
| DC Blocking Voltage  | $V_{DC}$  | 200      | V    |
| Average Forward Rectified Current Derate above $T_C=110^{\circ}C$                                | $I_O$     | 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 | °C   |
| Storage Temperature  | $T_{STG}$ | -55~+150 | °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     | °C/W |

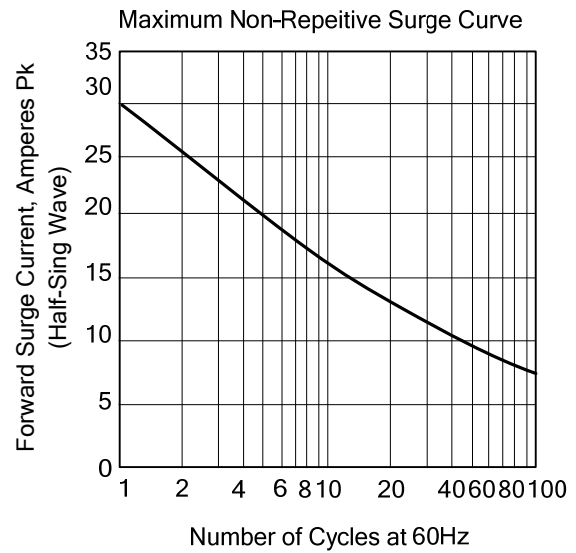
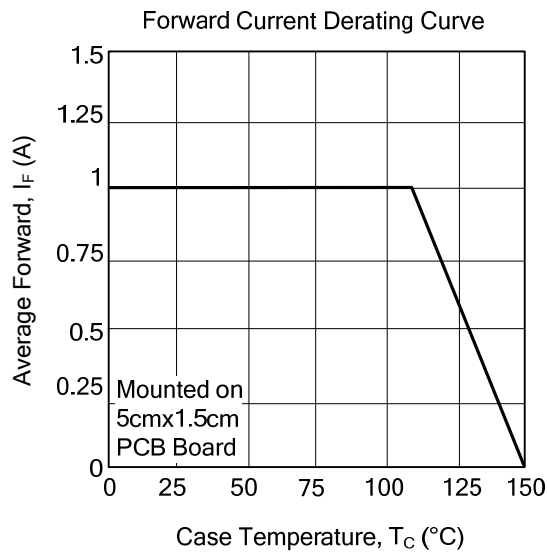
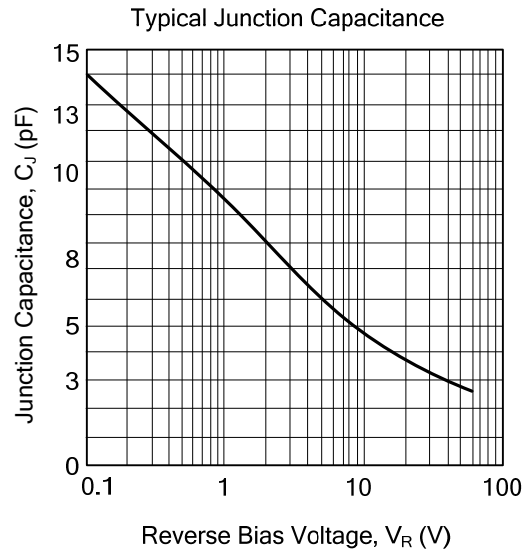
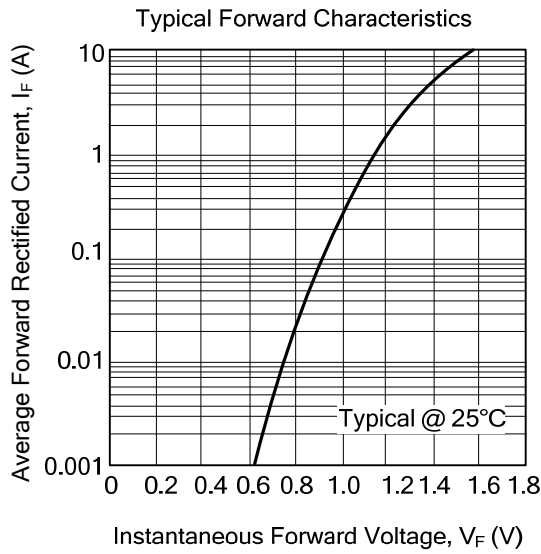
### ■ ELECTRICAL CHARACTERISTICS

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                   | $V_F$    | $I_F=0.7A$                       |     |     | 1.15 | V       |
|   |          | $I_F=1.0A$                       |     |     | 1.3  | V       |
| DC Reverse Current at Rated DC Blocking Voltage | $I_R$    | $T_J=25^{\circ}C$                |     |     | 1.0  | $\mu A$ |
|   |          | $T_J=125^{\circ}C$               |     |     | 50   | $\mu A$ |
| Reverse Recovery Time                           | $t_{rr}$ | $I_F=0.5A, I_R=1A, I_{rr}=0.25A$ |     |     | 150  | nS      |
| Junction Capacitance                            | $C_J$    | $V_R=4V, f=1MHz$                 |     | 9   |      | pF      |

■ TYPICAL CHARACTERISTICS



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