



RS1002FL

Preliminary

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
Lead Free	Halogen Free		1	2	
RS1002FLK-CA2F-R	RS1002FLG-CA2F-R	SOD-123F	K	A	Tape Reel

Note: Pin Assignment: A: Anode, K: Cathode

<p>RS1002FLK-CA2F-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel (2) CA2F: SOD-123F (3) K: Lead Free, G: Halogen Free</p>
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MARKING INFORMATION

PACKAGE	MARKING
SOD-123F	<p>R2F</p> <p>K: Lead Free G: Halogen Free</p>

■ 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 $T_C=110^{\circ}\text{C}$	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	$^{\circ}\text{C}$
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	θ_{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	μA
		$T_J=125^{\circ}\text{C}$			50	μA
Reverse Recovery Time	t_{rr}	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$			150	nS
Junction Capacitance	C_J	$V_R=4\text{V}$, $f=1\text{MHz}$		9		pF

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