



# UFA15M

## SURFACE MOUNT ULTRAFAST RECTIFIER

<b>Voltage</b>	<b>1000 V</b>	<b>Current</b>	<b>1.5 A</b>
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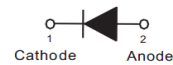
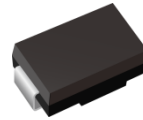
### Features

- Glass passivated chip junction
- Ultrafast reverse recovery time
- Low forward voltage drop
- Low switching losses, high efficiency
- High forward surge capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: SMA Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0024 ounces, 0.068 grams

SMA



### Maximum Ratings and Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum Rms Voltage	$V_{RMS}$	700	V
Maximum Dc Blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	1.5	A
Peak Forward Surge Current: 8.3ms Single Half Sine-Wave Superimposed On Rated Load	$I_{FSM}$	50	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	$C_J$	10.7	pF
Typical Thermal Resistance	$R_{\theta JA}^{(1)}$	150	$^\circ\text{C/W}$
	$R_{\theta JC}^{(2)}$	24	
Operating Junction Temperature Range	$T_J$	-55~150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~150	$^\circ\text{C}$



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## Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$	-	1.11	-	V
		$I_F = 1.5\text{ A}, T_J = 25^\circ\text{C}$	-	1.31	1.7	
		$I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$	-	0.85	-	
		$I_F = 1.5\text{ A}, T_J = 125^\circ\text{C}$	-	1.07	-	
Reverse Current	$I_R$	$V_R = 1000\text{ V}, T_J = 25^\circ\text{C}$	-	-	1	uA
		$V_R = 1000\text{ V}, T_J = 125^\circ\text{C}$	-	13	-	
Reverse Recovery Time	$T_{RR}$	$I_F = 0.5\text{ A}, I_R = 1\text{ A},$ $I_{RR} = 0.25\text{ A}, T_J = 25^\circ\text{C}$	-	-	100	ns

**NOTES:**

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 10cm\*10cm copper pad area.



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## TYPICAL CHARACTERISTIC CURVES

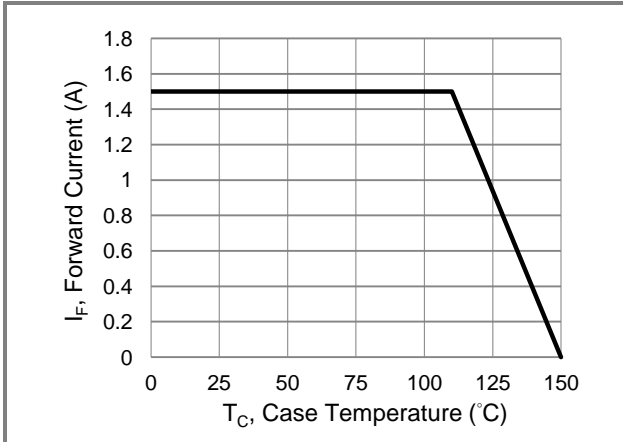


Fig.1 Forward Current Derating Curve

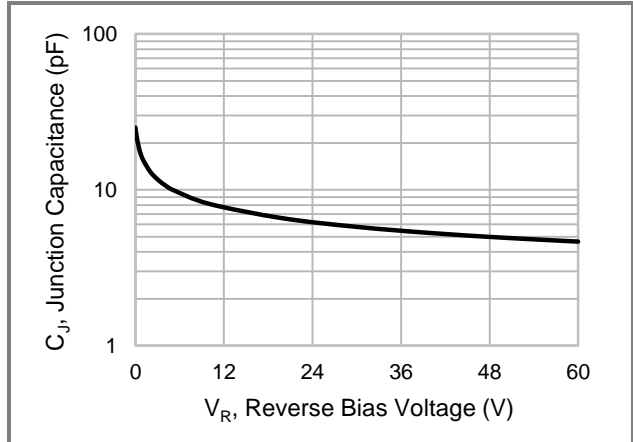


Fig.2 Typical Junction Capacitance

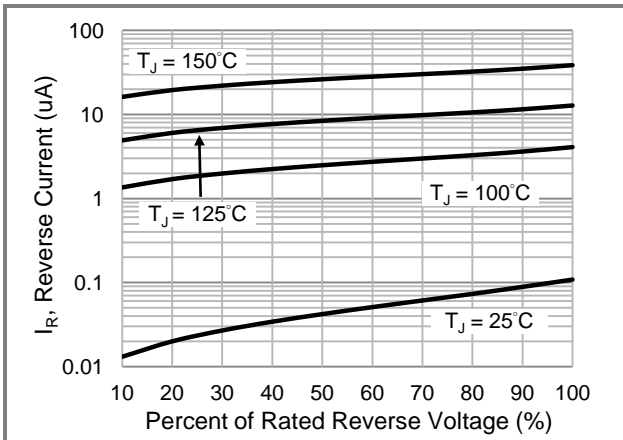


Fig.3 Typical Reverse Characteristics

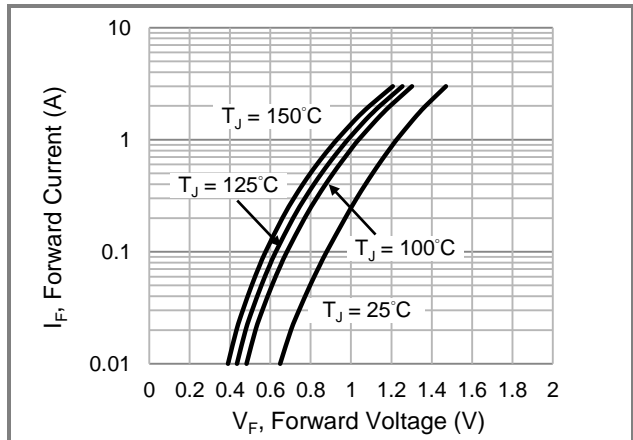


Fig.4 Typical Forward Characteristics

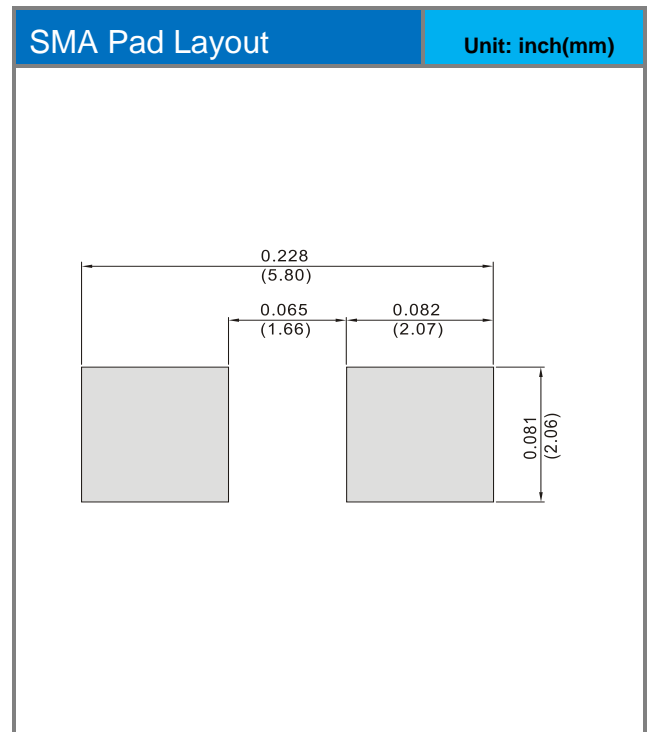
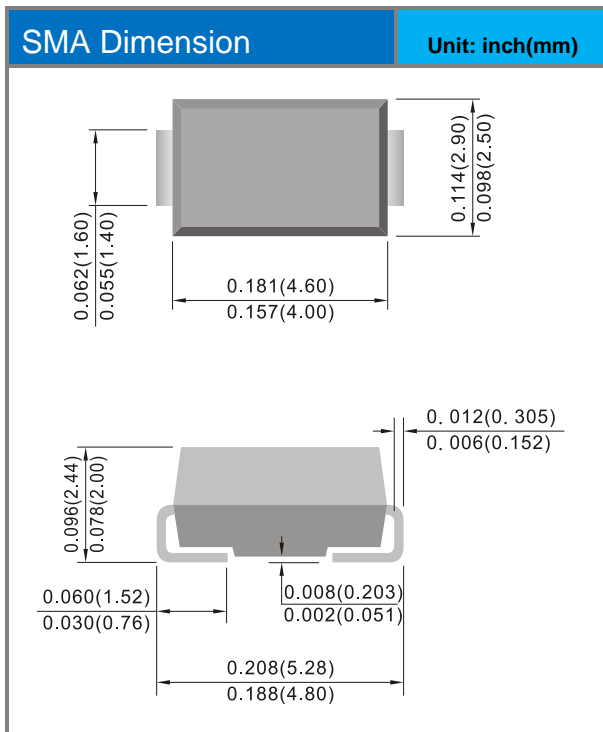


# UFA15M

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
UFA15M_R2_00001	SMA	7.5K pcs / 13" reel	UFA15M	Halogen free

## Packaging Information & Mounting Pad Layout





## UFA15M

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