

# UF1A~UF1M

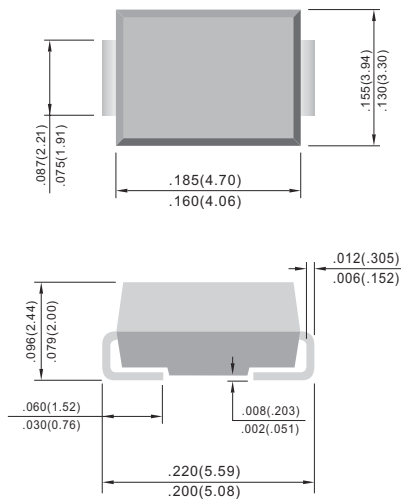
## SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT 1.0 Amperes



SMB/DO-214AA

Unit: inch (mm)



### FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

Case: JEDEC SMB/DO-214AA molded plastic  
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Indicated by cathode band  
 Standard packaging: 12mm tape (EIA-481)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UF1M	UNITS
Maximum Recurrent 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 Reverse Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375" (9.5mm) Lead length at $T_L=100$	$I_{AV}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1.0A	$V_F$	1.0		1.3		1.70		V	
Maximum DC Reverse Current $T_J=25$ at Rated DC Blocking Voltage $T_J=100$	$I_R$	5 200							uA
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	50				75			ns
Typical Junction capacitance (Note 2)	$C_J$	17							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	30							/W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +150							

NOTES: 1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$   
 2. Measured at 1 MHz and applied  $V_r = 4.0$  volts.  
 3. 8.0 mm<sup>2</sup> ( .013mm thick ) land areas.

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## RATING AND CHARACTERISTIC CURVES

