



# UF1A THRU UF1M

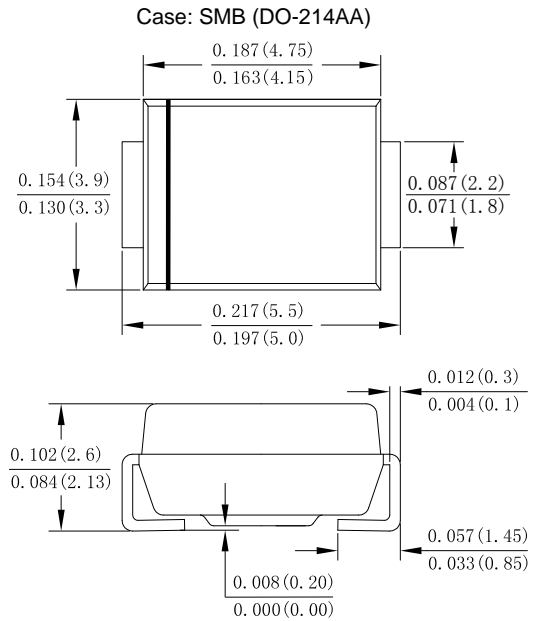
## 1.0AMP Surface Mount Glass Ultra Fast Rectifiers

### Features

- Low cost
- Ultra fast switching for high efficiency
- High current capability
- Plastic Case Material has UL Flammability Classification Rating 94V- 0

### Mechanical Data

- Case: Molded plastic SMB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UF1M	Unit
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 Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							A
Forward Voltage @ $I_F = 1.0A$	$V_{FM}$	1.0		1.3	1.7			V	
Peak Reverse Current @ $T_A = 25^\circ C$	$I_R$	5.0							uA
At Rated DC Blocking Voltage @ $T_A = 125^\circ C$		100							
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	3.73							$A^2s$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	50				75			ns
Typical Junction Capacitance (Note 2)	$C_J$	8							pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	95							$^\circ C/W$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

Note:

1. Reverse Recovery Test Conditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$ .
2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
3. Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length .



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FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

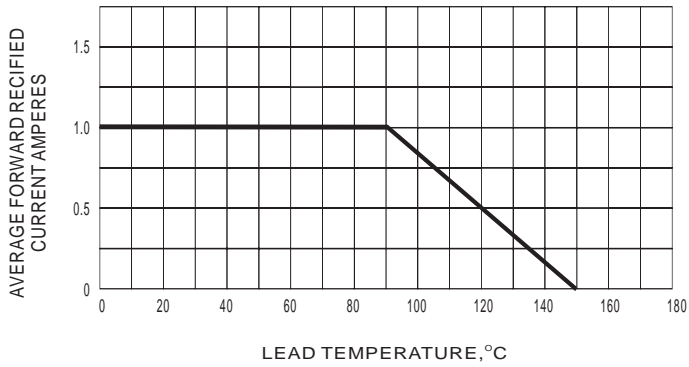


FIG.2 TYPICAL FORWARD CHARACTERISTICS

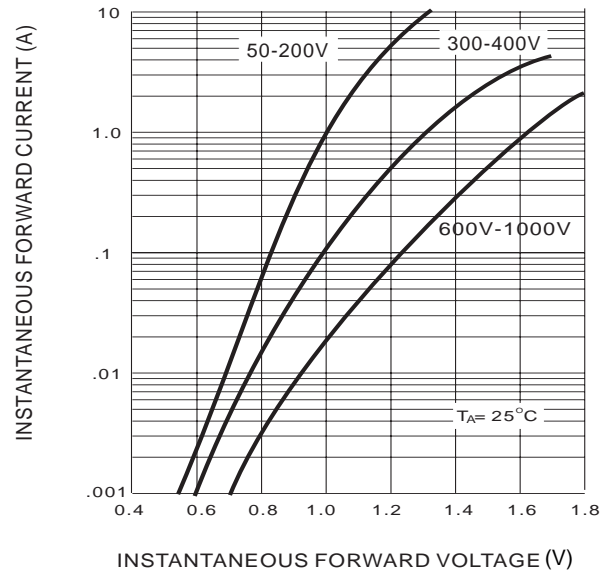


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

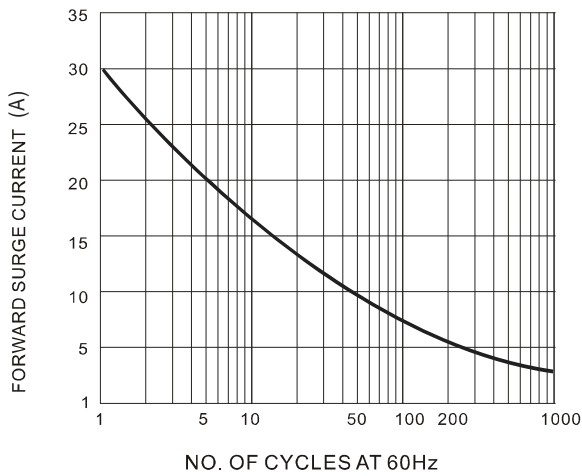


FIG.4 TYPICAL JUNCTION CAPACITANCE

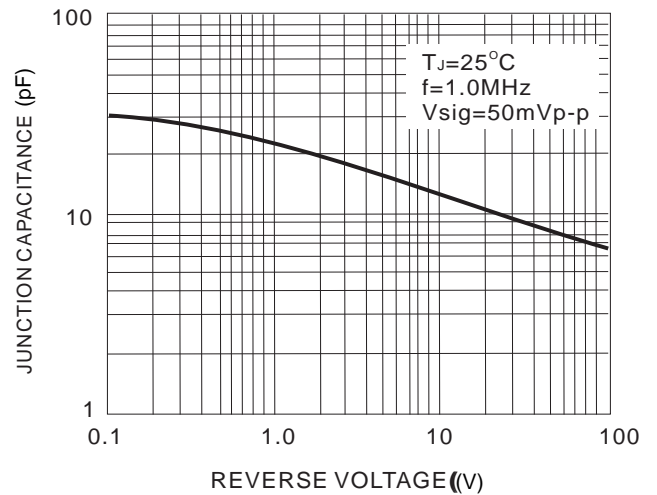


FIG.5 TYPICAL REVERSE CHARACTERISTICS

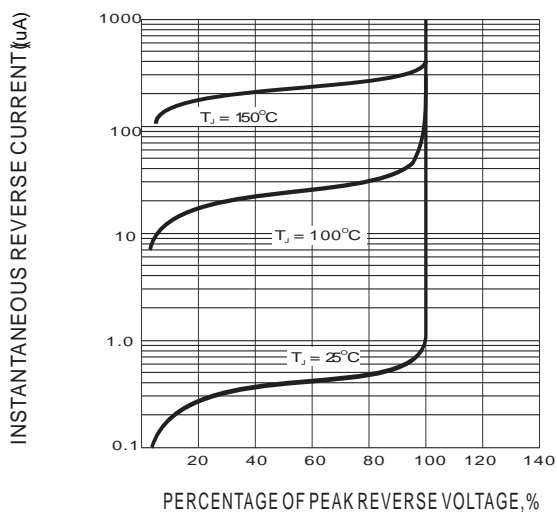
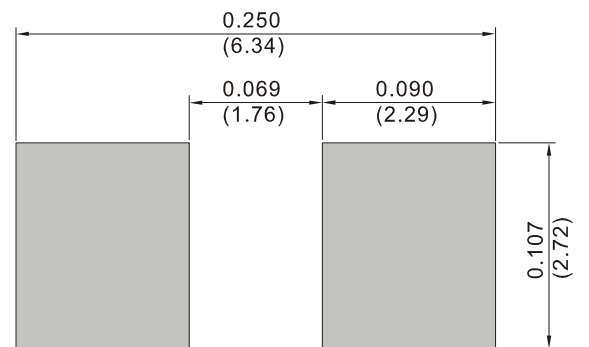


FIG.6 MOUNTING PAD LAYOUT





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