



Micro Commercial Components



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# UF1A THRU UF1M

**1 Amp Surface Mount  
Ultra Fast  
Rectifier  
50 to 1000 Volts**

## Features

- Lead Free Finish/RoHS Compliant(NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Glass passivated junction
- Easy pick and place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Superfast Recovery Times For High Efficiency

## Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
UF1A	UF1A	50V	35V	50V
UF1B	UF1B	100V	70V	100V
UF1D	UF1D	200V	140V	200V
UF1G	UF1G	400V	280V	400V
UF1J	UF1J	600V	420V	600V
UF1K	UF1K	800V	560V	800V
UF1M	UF1M	1000V	700V	1000V

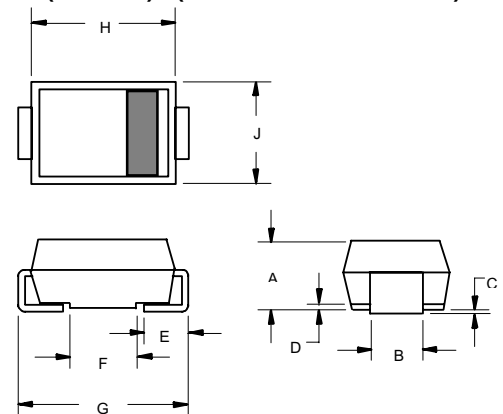
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_L = 100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}^*$
UF1A-D		1.4V	
UF1G UF1J-M		1.7V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10µA 100µA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	50ns	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$
UF1A-G UF1J-M		100ns	
Typical Junction Capacitance	$C_J$	17pF	Measured at 1.0MHz, $V_R=4.0V$

\*Pulse test: Pulse width 200 µsec, Duty cycle 2%

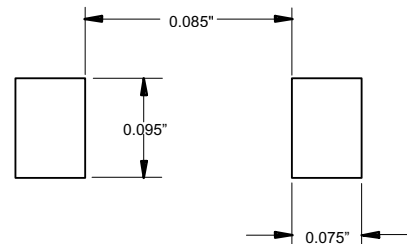
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

## DO-214AA (SMB) (LEAD FRAME)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.083	.096	2.11	2.44	
B	.075	.083	1.91	2.11	
C	.002	.008	.05	.20	
D	----	.02	----	.51	
E	.030	.050	.76	1.27	
F	.065	.091	1.65	2.32	
G	.200	.220	5.08	5.59	
H	.160	.185	4.06	4.70	
J	.130	.155	3.30	3.94	

### SUGGESTED SOLDER PAD LAYOUT



# UF1A thru UF1M

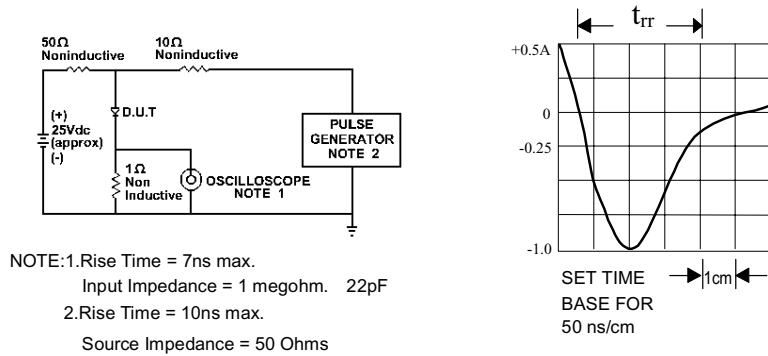


Fig. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

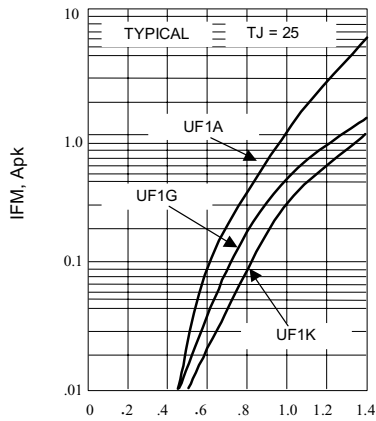


Fig. 2- FORWARD CHARACTERISTICS

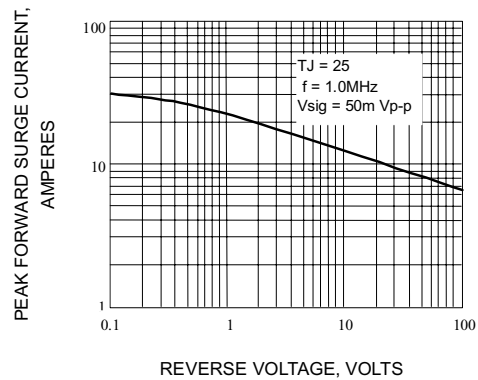


Fig. 3- TYPICAL JUNCTION CAPACITANCE

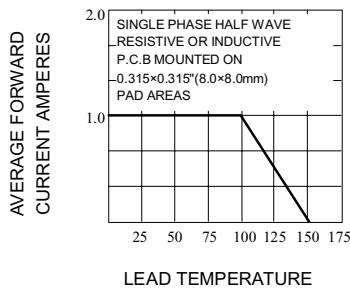


Fig. 4- FORWARD CURRENT DERATING CURVE

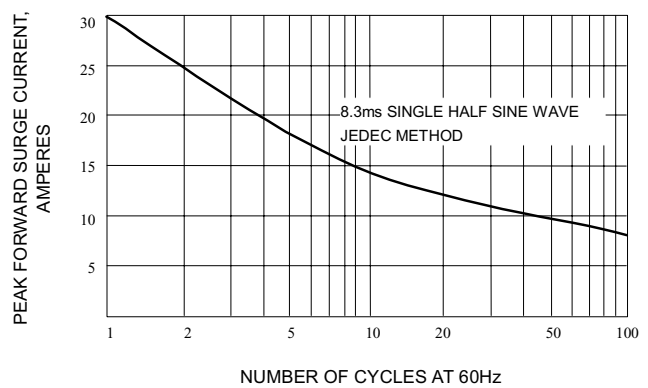


Fig. 5- PEAK FORWARD SURGE CURRENT



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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