



Micro Commercial Components

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# UF1A THRU UF1K

## Features

- For surface mounted applications
- Glass passivated junction
- Easy pick and place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Superfast Recovery Times For High Efficiency

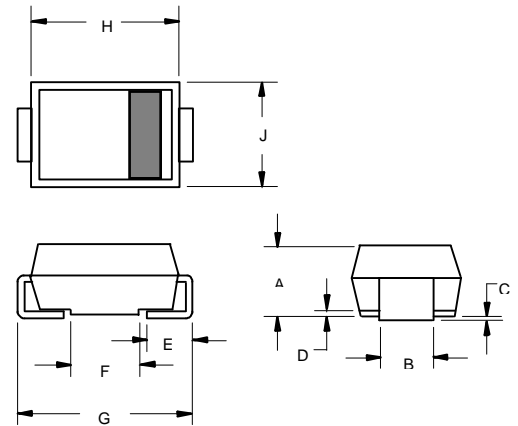
**1 Amp Surface Mount  
Super Fast  
Rectifier  
50 to 800 Volts**

## 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 Reccurent 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

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

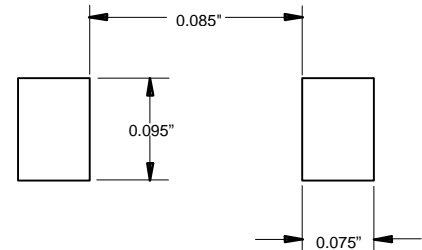


DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.083	.096	2.11	2.44	
B	.075	.083	1.91	2.11	
C	.002	.008	.05	.20	
D	----	.02	----	.51	
E	.030	.050	.76	1.27	
F	.065	.091	1.65	2.32	
G	.200	.220	5.08	5.59	
H	.160	.185	4.06	4.70	
J	.130	.155	3.30	3.94	

## 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 1.4V 1.7V	$I_{FM} = 1.0\text{A};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 100 $\mu\text{A}$	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	50ns 100ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance	$C_J$	17pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

## SUGGESTED SOLDER PAD LAYOUT



\*Pulse test: Pulse width 200  $\mu\text{sec}$ , Duty cycle 2%

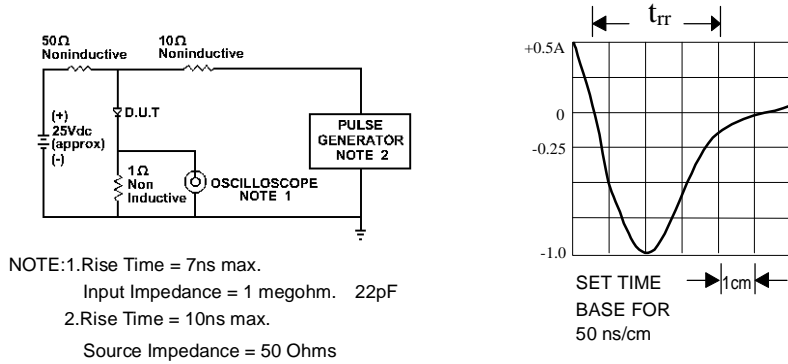


Fig. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

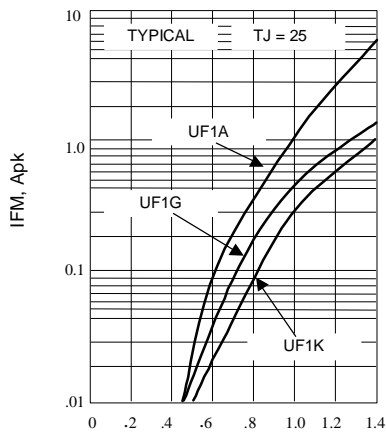


Fig. 2- FORWARD CHARACTERISTICS

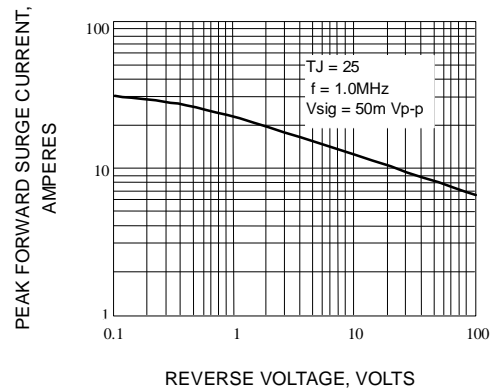


Fig. 3- TYPICAL JUNCTION CAPACITANCE

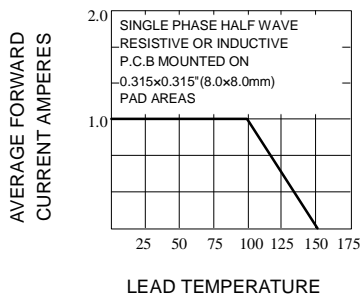


Fig. 4- FORWARD CURRENT DERATING CURVE

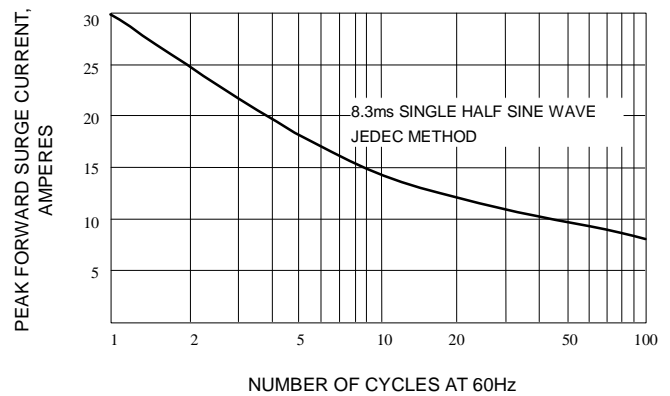


Fig. 5- PEAK FORWARD SURGE CURRENT