



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

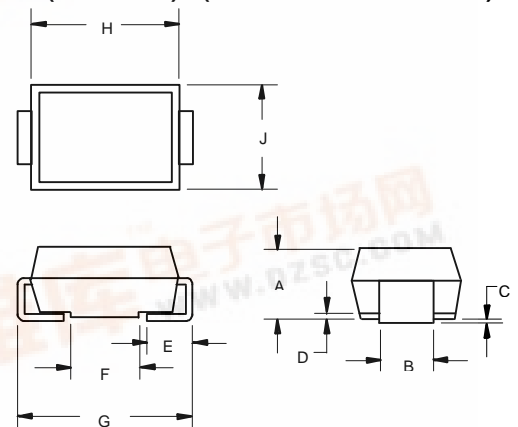
Maximum Ratings

- 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

1 Amp Surface Mount Super Fast Rectifier 50 to 800 Volts

DO-214AA (SMBJ) (LEAD FRAME)

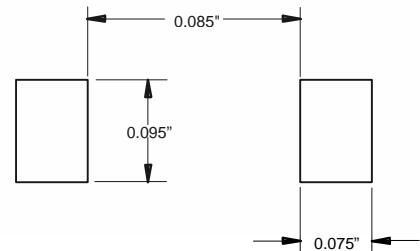


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.083	.096	2.11	2.44	
B	.075	.083	1.91	2.11	
C	.002	.008	.05	.20	
D	-----	.02	-----	.51	
E	.030	.050	.76	1.27	
F	.065	.091	1.65	2.32	
G	.200	.220	5.08	5.59	
H	.160	.185	4.06	4.70	
J	.130	.155	3.30	3.94	

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 μA 100 μA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
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, $V_R=4.0\text{V}$

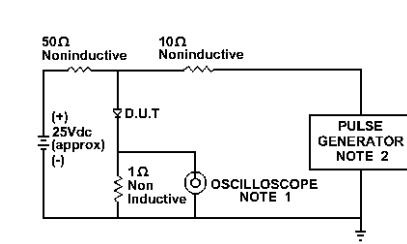
SUGGESTED SOLDER PAD LAYOUT



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



UF1A thru UF1K



NOTE:1. Rise Time = 7ns max.
 Input Impedance = 1 megohm. 22pF
 2. Rise Time = 10ns max.
 Source Impedance = 50 Ohms

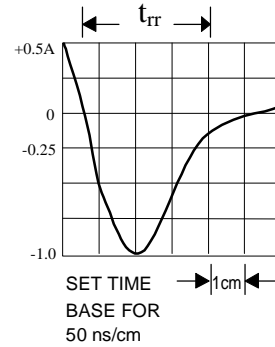


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

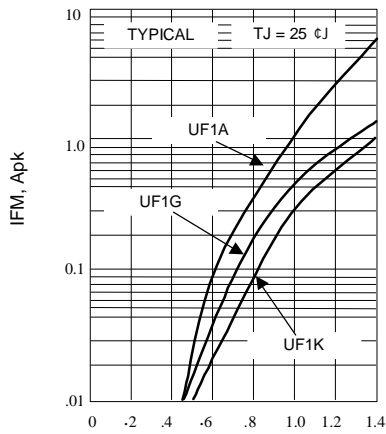


Fig. 2-FORWARD CHARACTERISTICS

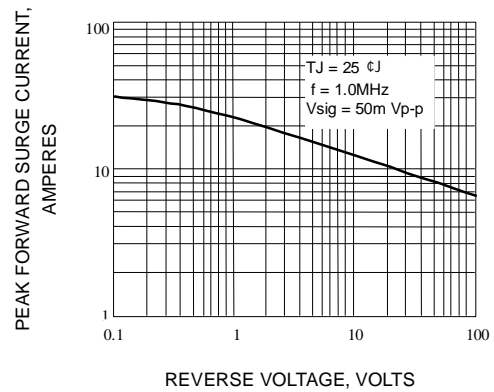


Fig. 3- TYPICAL JUNCTION CAPACITANCE

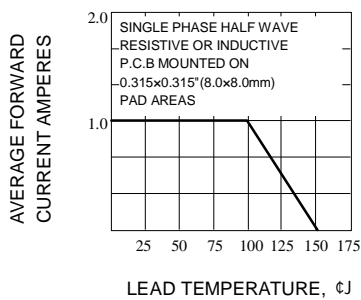


Fig. 4- FORWARD CURRENT DERATING CURVE

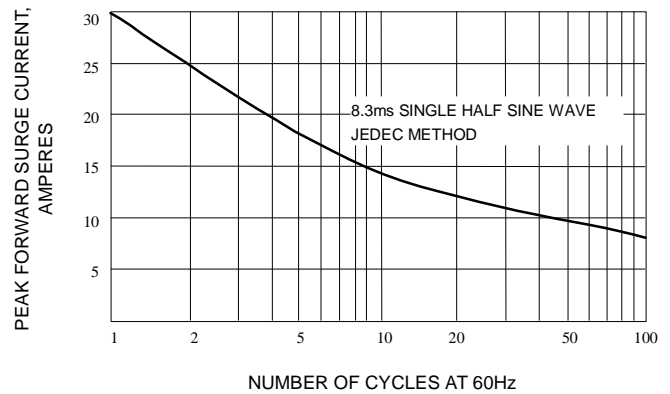


Fig. 5-PEAK FORWARD SURGE CURRENT