

### Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Glass Passivated Junction
- Superfast Recovery Times For High Efficiency
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

### Maximum Ratings

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

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

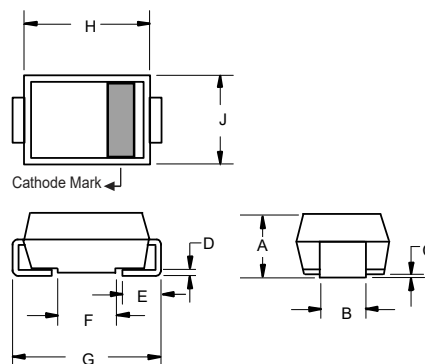
\*Pulse Test: Pulse Width 200  $\mu\text{sec}$ , Duty Cycle 2%

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

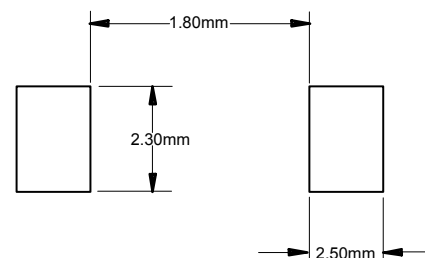
# 1 Amp Ultra Fast Rectifier 50 to 1000 Volts

## SMB (DO-214AA)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

### Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

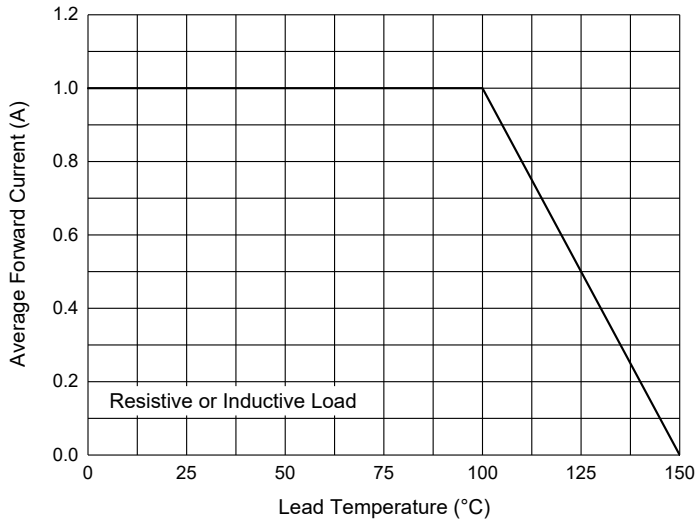


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

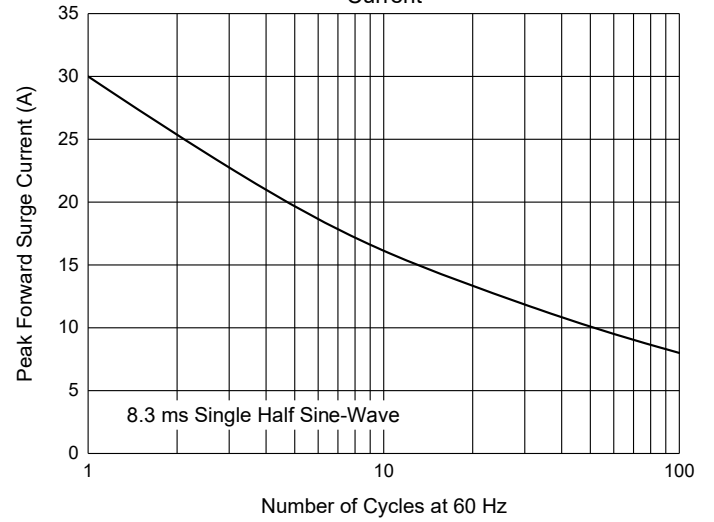


Fig. 3 - Typical Instantaneous Forward Characteristics

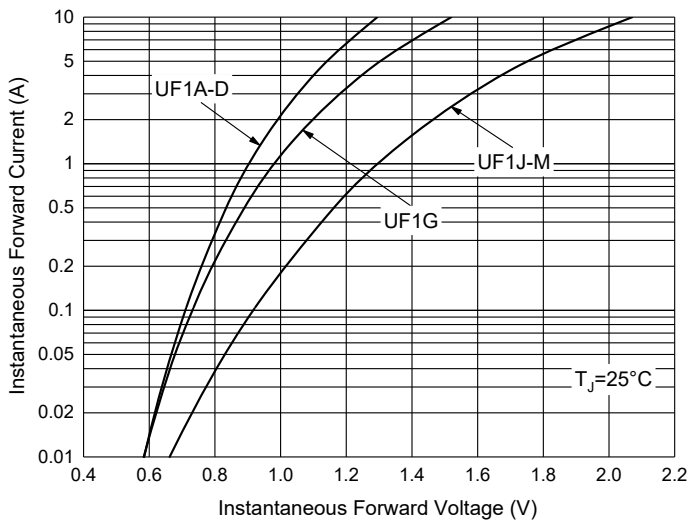
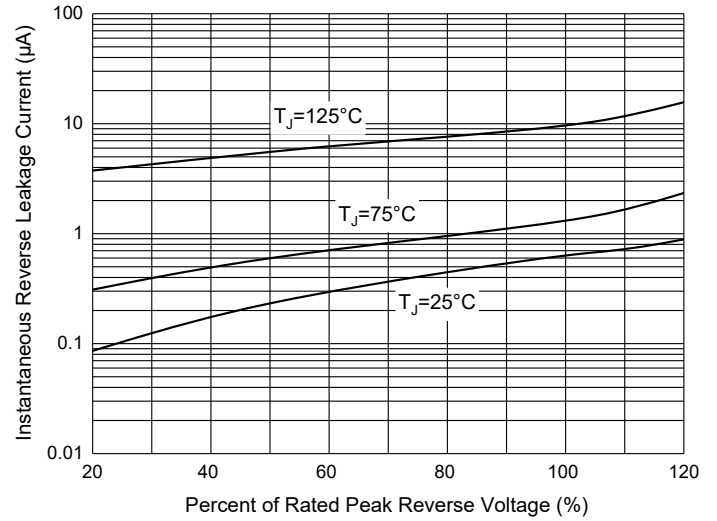


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

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

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