

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

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

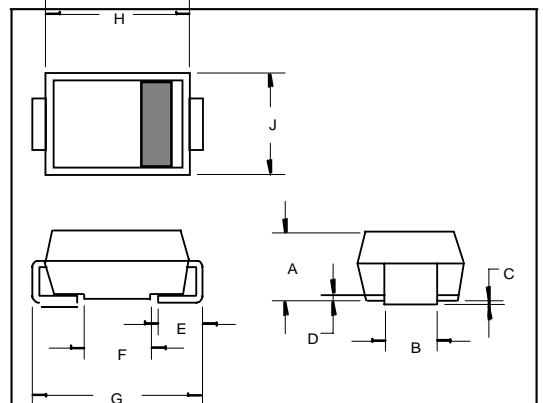
Average Forward Current	$I_{F(AV)}$	1.0A	$T_L = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}^*$
UF1A-D		1.4V	
UF1G UF1J-M		1.7V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μ A 100 μ A	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
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 μ sec, Duty cycle 2%

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

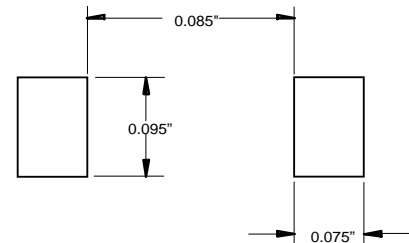
1 Amp Surface Mount Ultra Fast Rectifier 50 to 1000 Volts

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

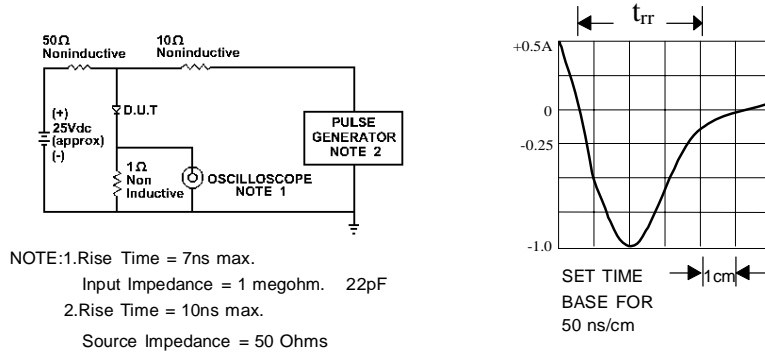


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

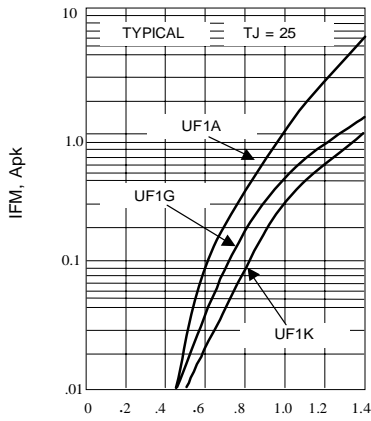


Fig. 2-FORWARD CHARACTERISTICS

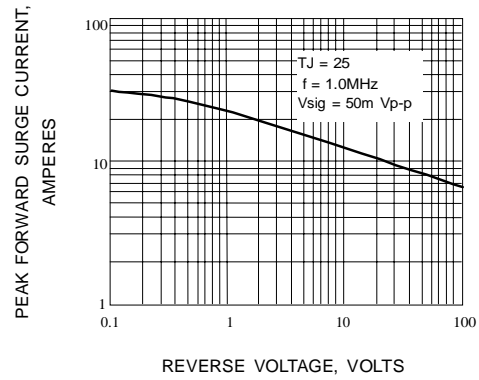


Fig. 3- TYPICAL JUNCTION CAPACITANCE

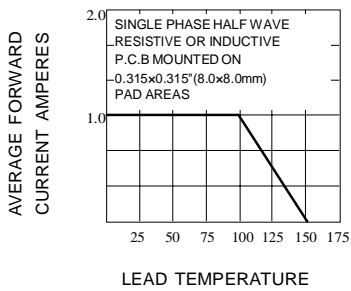


Fig. 4- FORWARD CURRENT DERATING CURVE

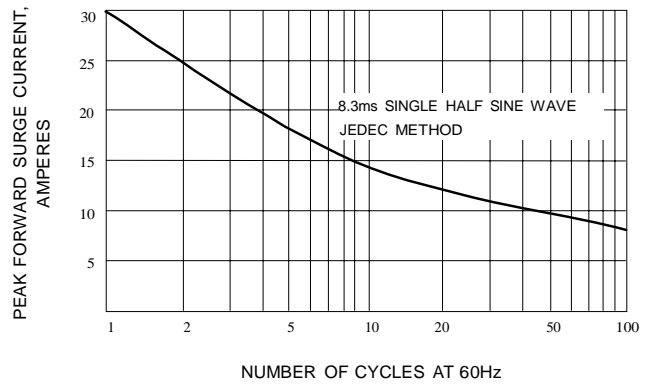


Fig. 5-PEAK FORWARD SURGE CURRENT