



**VOLTAGE RANGE: 50 --- 1000 V**

**CURRENT: 1.0 A**

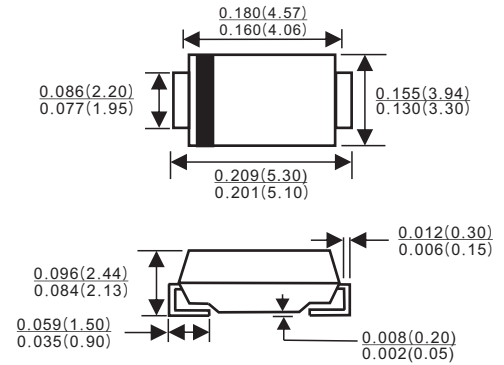
## Features

- ✧ Low cost
- ✧ Low leakage
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ Easily cleaned with Alcohol, Isopropanol and similar solvents
- ✧ The plastic material carries U/L recognition 94V-0

## Mechanical Data

- ✧ Case: JEDEC SMB, molded plastic
- ✧ Polarity: Color band denotes cathode
- ✧ Weight: 0.003 ounces, 0.093 grams
- ✧ Mounting position: Any

## SMB/DO-214AA



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

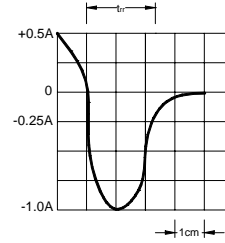
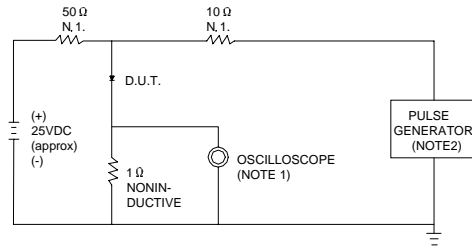
		UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UF1M	UNITS
Device marking code		UAB	UBB	UDB	UGB	UJB	UKB	UMB	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_L=90^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	30							A
Maximum instantaneous forward voltage at 1.0 A	$V_F$	1.0		1.4		1.7		V	
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	10 100							$\mu\text{A}$
Typical reverse recovery time (Note1)	$t_{rr}$	50				75		ns	
Typical junction capacitance (Note2)	$C_J$	15				12		pF	
Typical thermal resistance (Note3)	$R_{\theta JA}$	15							$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150							$^\circ\text{C}$

NOTE: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

## Ratings AND Characteristic Curves

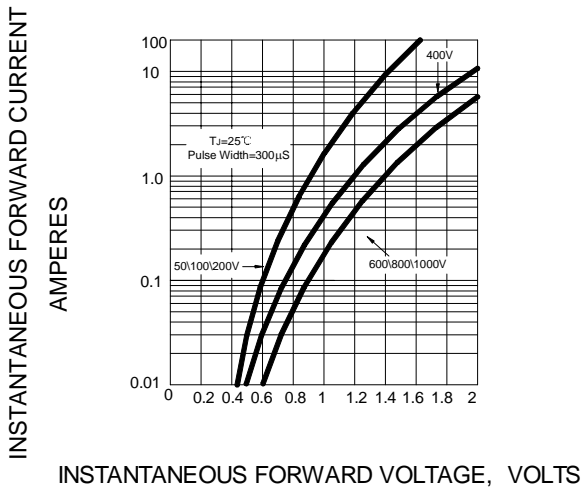
**FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



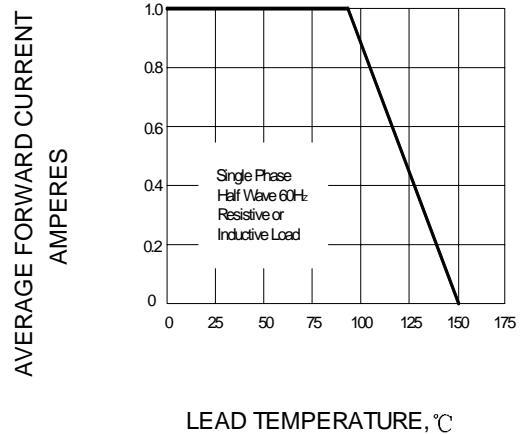
NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ .22pF.  
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω .

SET TIME BASE FOR 20/30 ns/cm

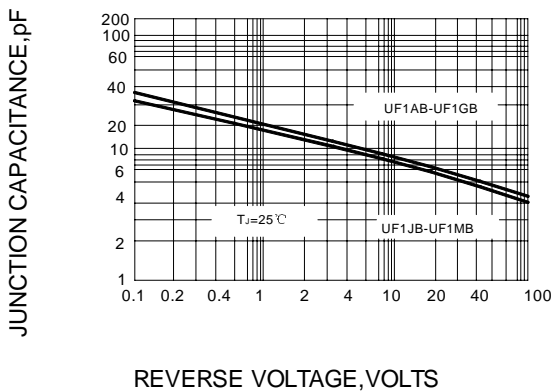
**FIG.2 -- TYPICAL FORWARD CHARACTERISTIC**



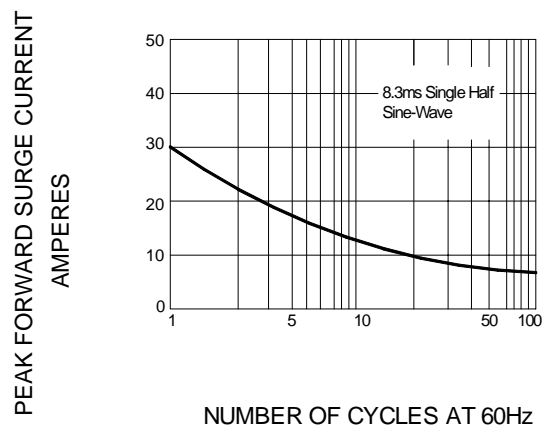
**FIG.3 -- FORWARD DERATING CURVE**



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**



**FIG.5 -- PEAK FORWARD SURGE CURRENT**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMB	3000/REEL	48000	36X35.8X36.5	12.00	11.00