

Features

- $I_{F(AV)}$ 3A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode



SMAF top view



Schematic diagram

Applications

- Rectifier

Marking

- RS3X
- X : From A To M



Pb-Free



RoHS



Halogen-Free

Limiting Values (Absolute Maximum Rating)

Symbol	Item	Conditions	RS3							Unit
			AF	BF	DF	GF	JF	KF	MF	
V_{RRM}	Repetitive Peak Reverse Voltage		50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Voltage		35	70	140	280	420	560	700	V
$I_{F(AV)}$	Average Rectified Output Current	60Hz Half-sine wave, Resistance load	3.0							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	90							A
T_J, T_{STG}	Operating and Storage Temperature Range		-55~ +150							$^{\circ}C$

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Symbol	Item	Condition	RS3							Unit
			AF	BF	DF	GF	JF	KF	MF	
V_F	Peak Forward Voltage	$I_F=3.0A$	1.3							V
I_{RRM1}	Peak Reverse Current	$V_{RM}=V_{RRM}$ $T_a=25^{\circ}C$	5							μA
I_{RRM2}		$V_{RM}=V_{RRM}$ $T_a=100^{\circ}C$	50							
$R_{\theta J-A}$	Thermal Resistance	Between junction and ambient	90							$^{\circ}C/W$
C_J	Typical junction capacitance per diode	Measured at 1.0MHz and applied reverse voltage of 4.0 volts	15.0							pF
t_{rr}	Maximum reverse recovery time	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	150			250		500		ns

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on 1" x 1"(25.4mm x 25.4mm) FR4 PCB, double sided copper, with minimum pad layout

Typical Operating Characteristics

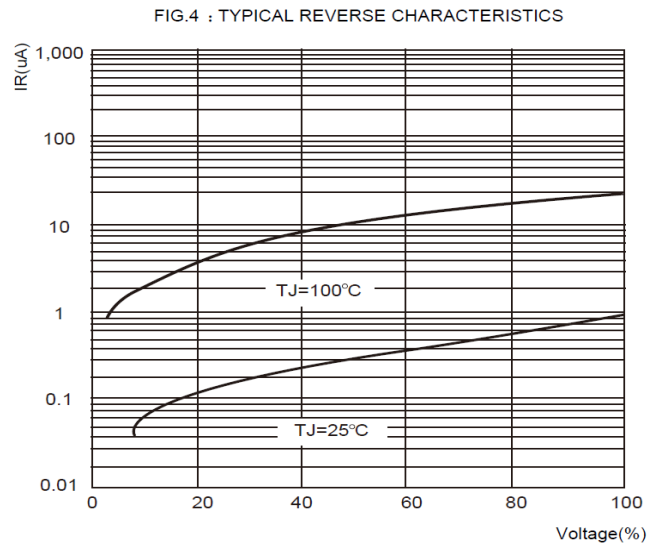
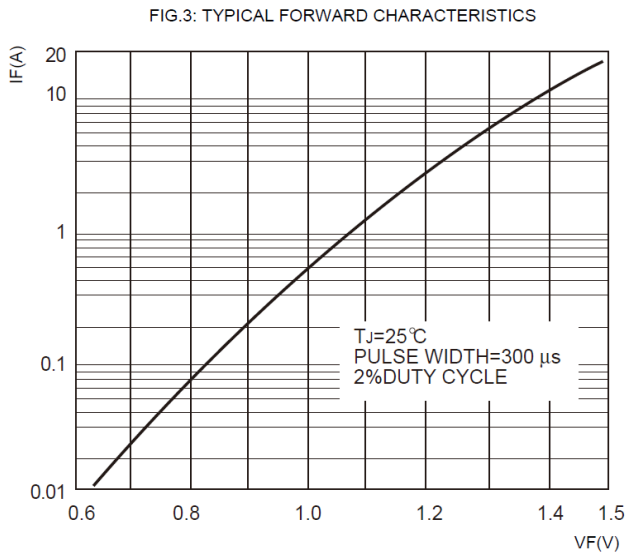
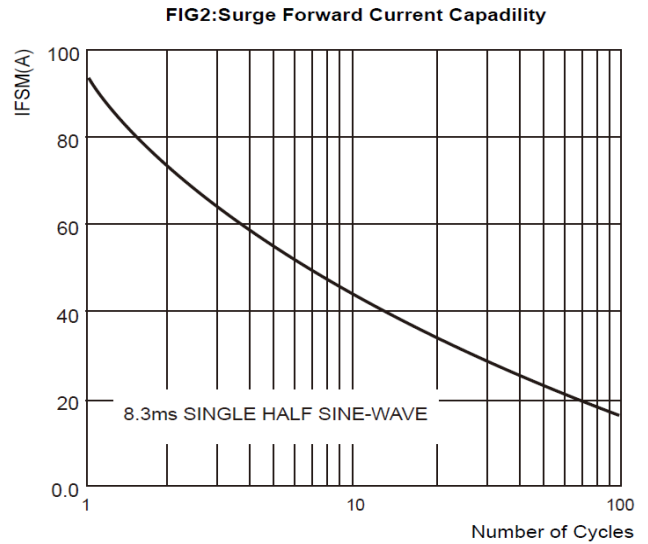
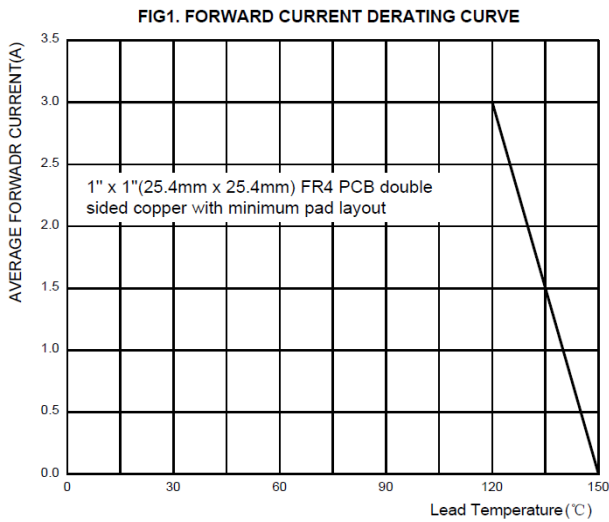
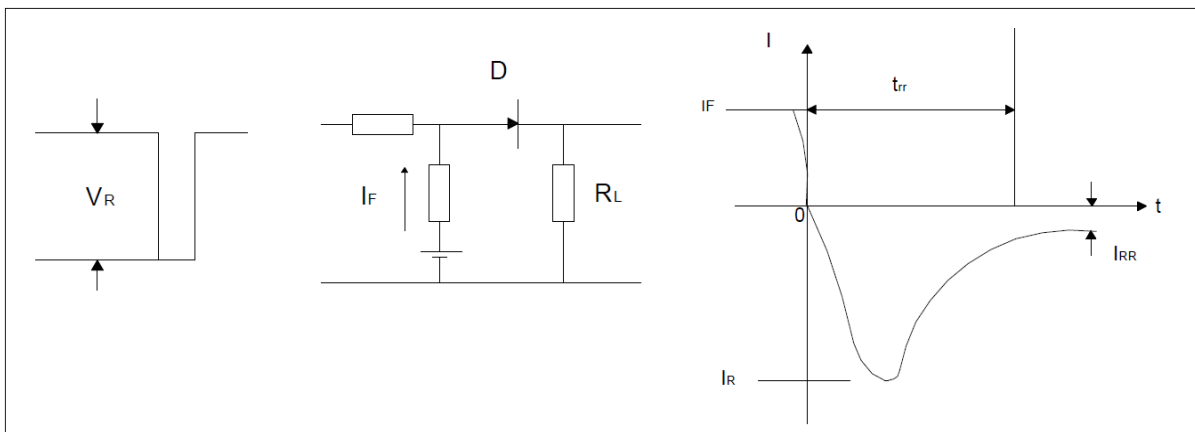
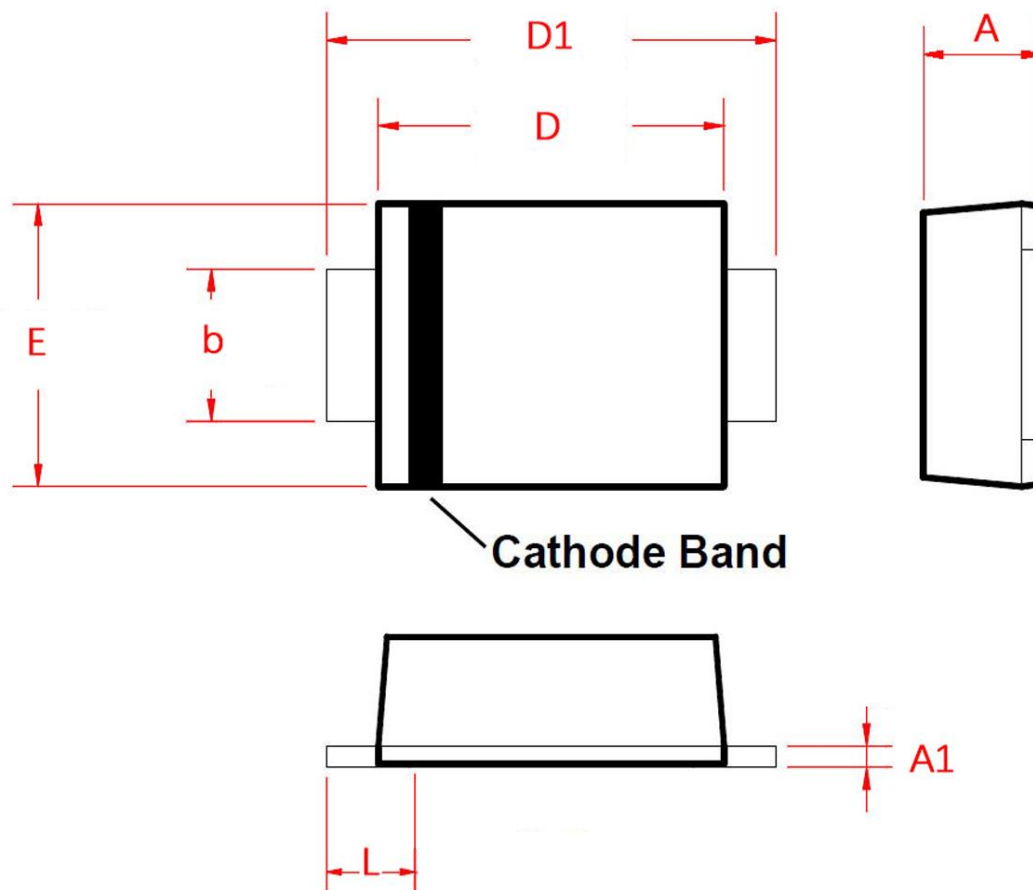


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



SMAF Package information


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.200	0.035	0.047
A1	0.120	0.180	0.005	0.007
b	1.300	1.600	0.051	0.063
D	3.300	3.700	0.130	0.146
D1	4.400	4.900	0.173	0.193
E	2.400	2.700	0.094	0.106
L	0.800	1.300	0.031	0.051