

Features

- $I_{F(AV)}$ 4A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- RS4XBF

X : From A To M



SMBF top view



Schematic diagram



Halogen-Free

Limiting Values (Absolute Maximum Rating)

Symbol	Item	Conditions	RS4							Unit
			ABF	BBF	DBF	GBF	JBF	KBF	MBF	
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, $T_L=100^\circ\text{C}$	4.0							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	120							A
T_J	Junction Temperature		-55 ~ +150							$^\circ\text{C}$
T_{STG}	Operating and Storage Temperature Range		-55 ~ +150							$^\circ\text{C}$

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

Symbol	Item	Condition	RS4							Unit
			ABF	BBF	DBF	GBF	JBF	KBF	MBF	
V _F	Peak Forward Voltage	I _F =4.0A	1.3							V
I _{RRM1}	Peak Reverse Current	V _{RM} =V _{RRM} T _a =25℃	5							μA
I _{RRM2}		V _{RM} =V _{RRM} T _a =100℃	500							
R _{θJA}	Thermal Resistance	Between junction and ambient	78							℃/W
C _J	Typical junction capacitance per diode	Measured at 1.0MHz and applied reverse voltage of 4.0 volts	68							pF
t _{rr}	Maximum reverse recovery time	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	150				250	500	ns	

Typical Operating Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

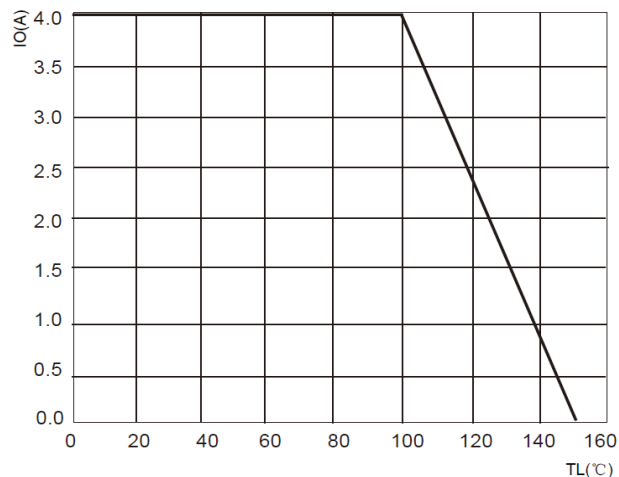


FIG2: Surge Forward Current Capability

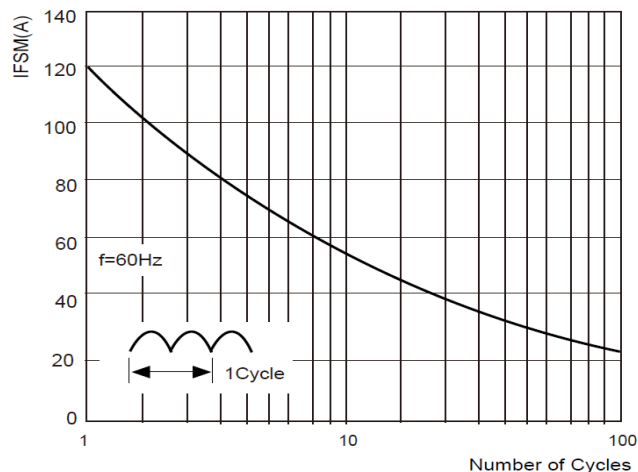


FIG.3: TYPICAL FORWARD CHARACTERISTICS

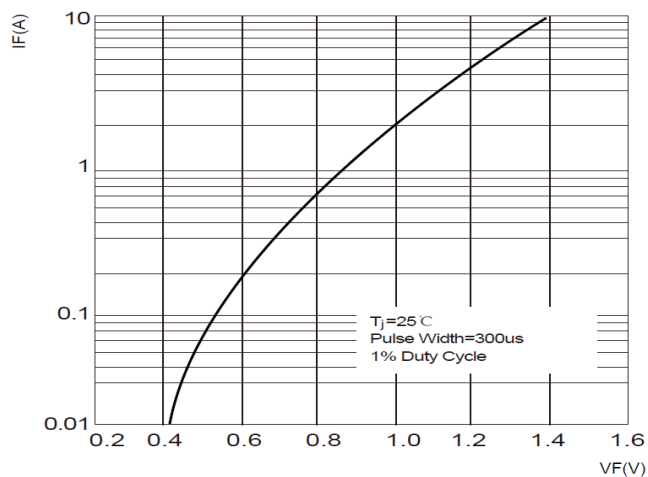


FIG.4 : TYPICAL REVERSE CHARACTERISTICS

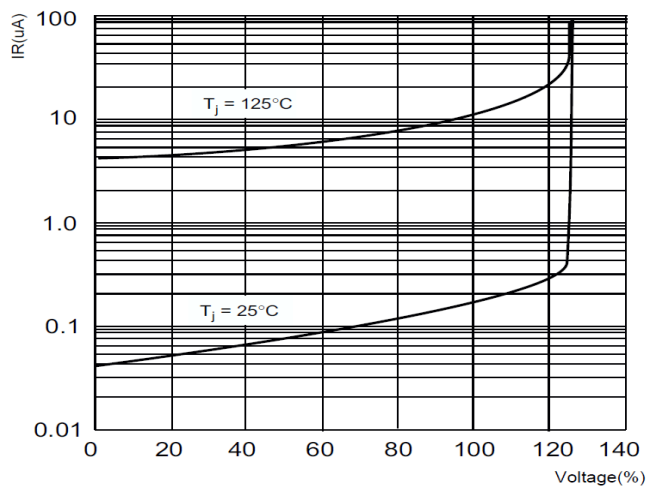
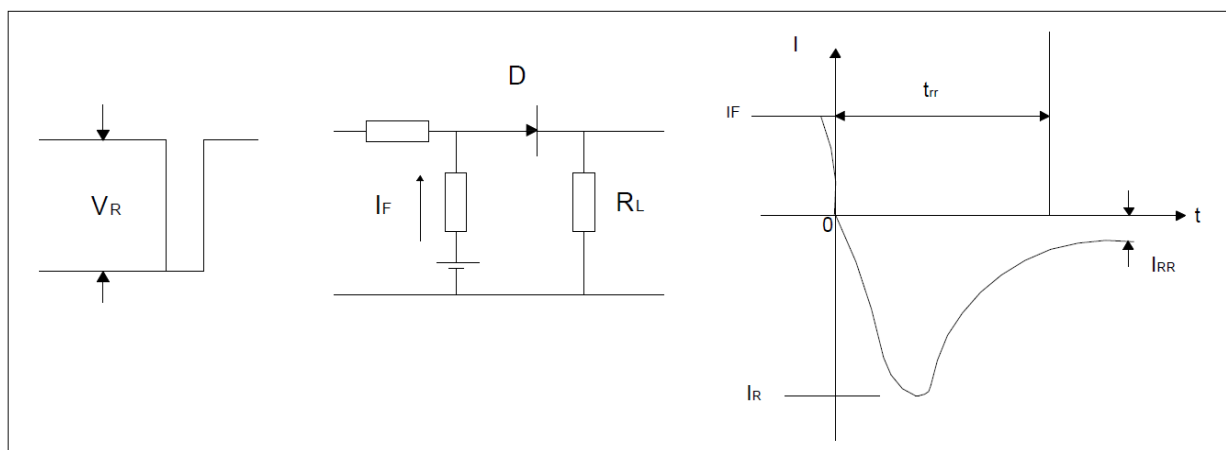
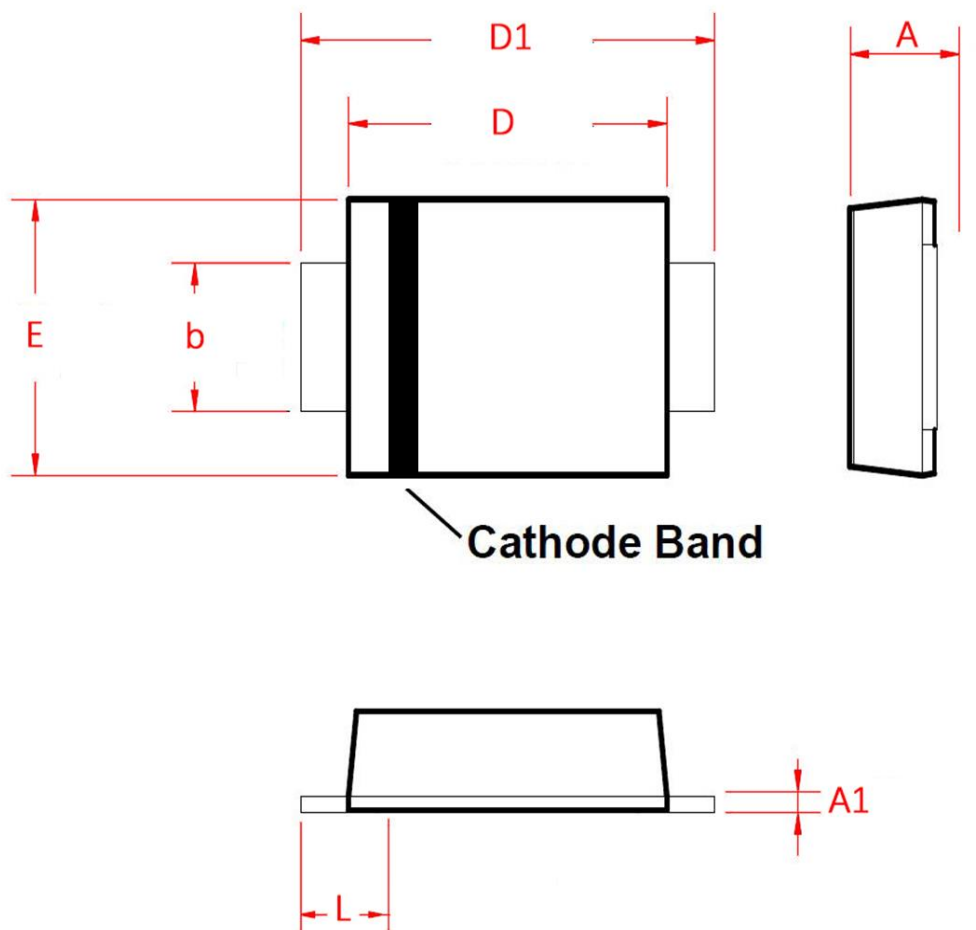


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



SMBF Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.550	0.041	0.061
A1	0.150	0.250	0.006	0.010
b	1.900	2.100	0.075	0.083
D	4.150	4.450	0.163	0.175
D1	5.100	5.500	0.201	0.216
E	3.450	3.750	0.136	0.148
L	0.700	1.350	0.028	0.053