RS2ABF THRU RS2MBF

Fast Recovery Rectifier Diodes

Features

- $I_{F(AV)}$ 2A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

SMBF top view

Schematic diagram

Applications

- Rectifier

Marking

- RS2XBF

X : From A To M

Pb-Free RoHS Halogen-Free

Limiting Values (Absolute Maximum Rating)

Symbol	Item	Conditions	RS2							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，TL=100℃	2.0							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave，1 cycle，Ta=25℃	60							A
T_J	Junction Temperature		-55 ~ +150							℃
T_{STG}	Operating and Storage Temperature Range		-55 ~ +150							℃

Electrical Characteristics （T_a=25℃ Unless otherwise specified）

Symbol	Item	Condition	RS2							Unit
			ABF	BBF	DBF	GBF	JBF	KBF	MBF	
V_F	Peak Forward Voltage	I_F =2.0A	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 =125℃	500							
$R_{\theta J-A}$	Thermal Resistance	Between junction and ambient	78							℃/W
C_J	Typical junction capactiance per diode	Measured at 1.0MHz and applied reverse voltage of 4.0 volts	60							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

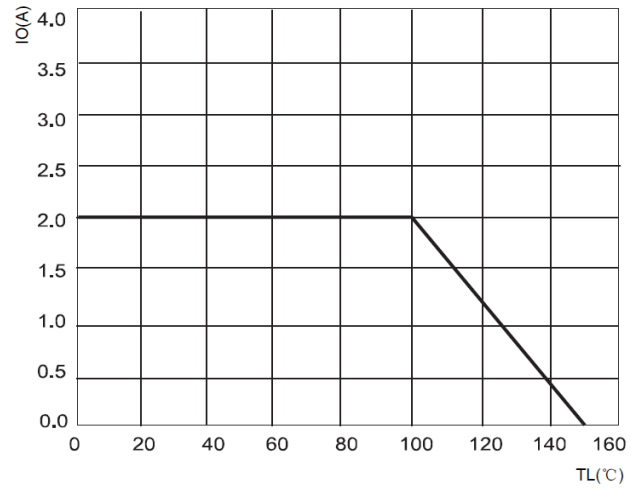


FIG2:Surge Forward Current Capadility

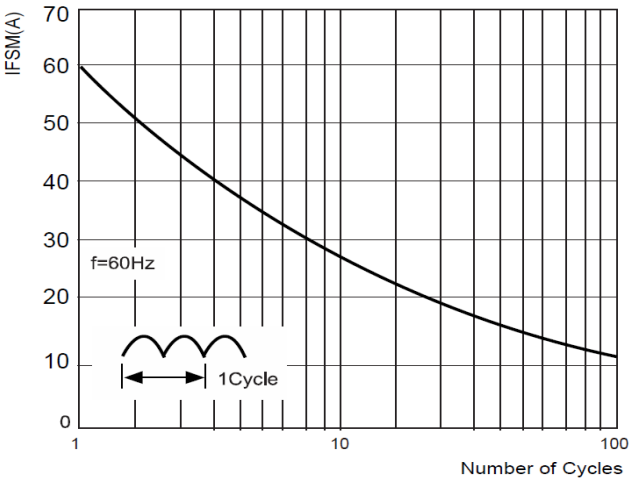


FIG.3: TYPICAL FORWARD CHARACTERISTICS

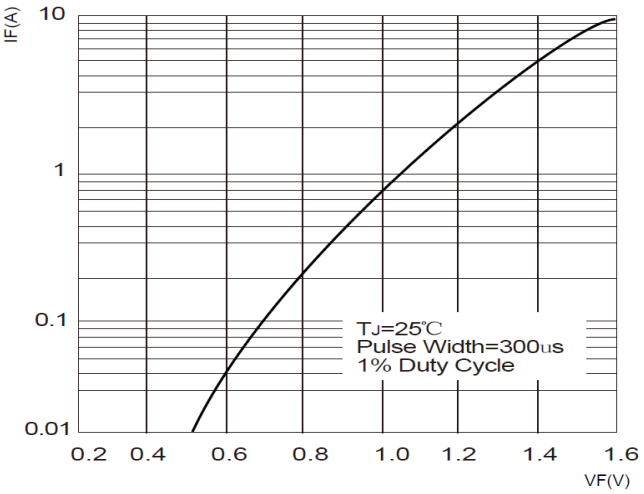


FIG.4 ：TYPICAL REVERSE CHARACTERISTICS

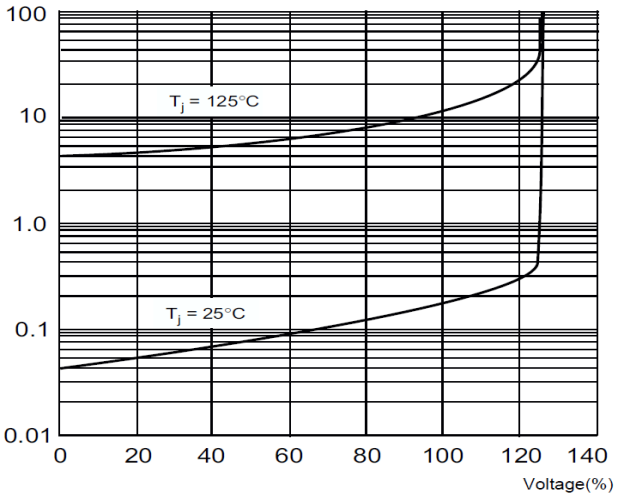
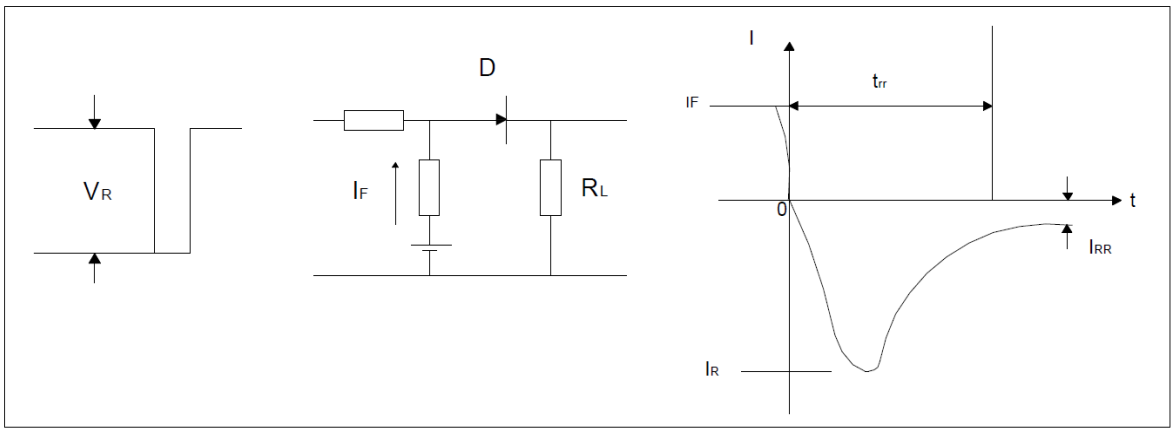
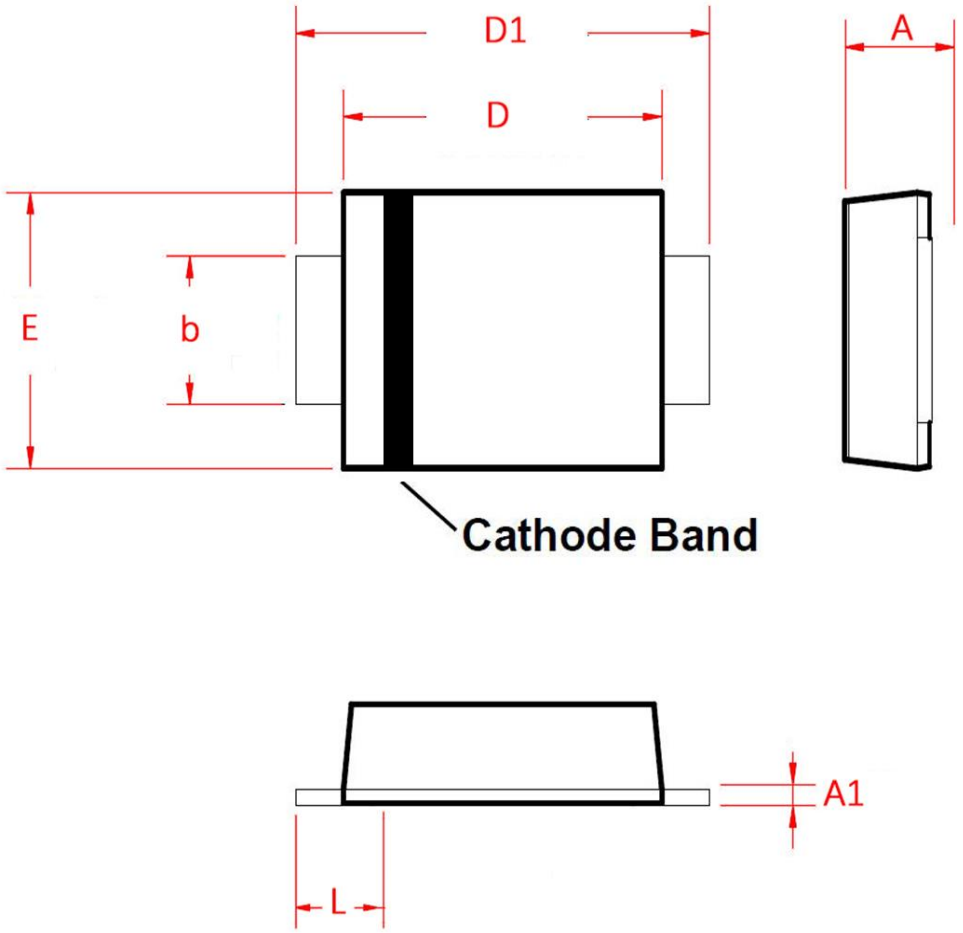


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



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