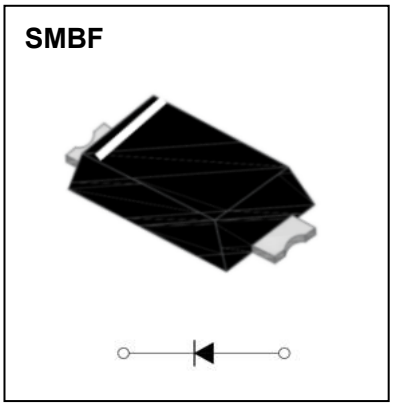
SZCJ Shenzhen Changji Semiconductor Co., LTD.

SMBF Plastic-Encapsulate Diodes

RS3ABF THRU RS3MBF Fast Recovery Rectifier Diodes

Features

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



Applications

- Rectifier

Marking

- RS3XBF

X：From A To M

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	RS3						
				ABF	BBF	DBF	GBF	JBF	KBF	MBF
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V		35	70	140	280	420	560	700
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave，Resistance load，TL= 100 ℃	3.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave，1 cycle，Ta=25 ℃	100						
Junction Temperature	T_J	℃		-55 ~ +150						
Storage Temperature	T_{STG}	℃		-55 ~ +150						

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		RS3						
					ABF	BBF	DBF	GBF	JBF	KBF	MBF
Peak Forward Voltage	V_F	V	I_F=3.0A		1.3						
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	Ta =25℃	5						
	I_{RRM2}			Ta =125℃	500						
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		78						
Typical junction capactiance per diode	C_J	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		60						
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A,I_{rr}=0.25A		150				250		500

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

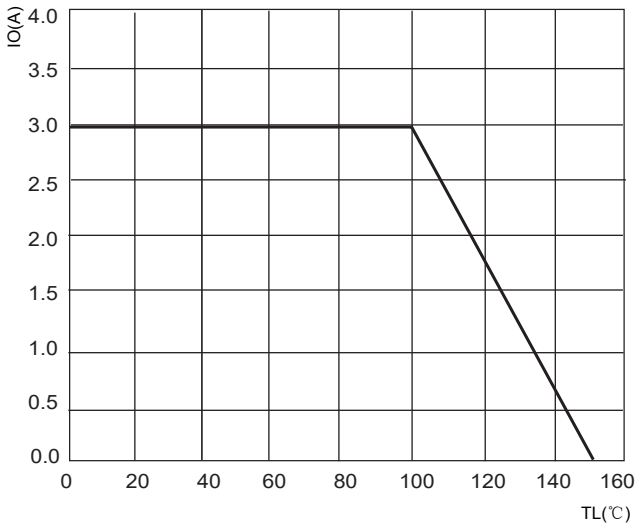


FIG2:Surge Forward Current Capadility

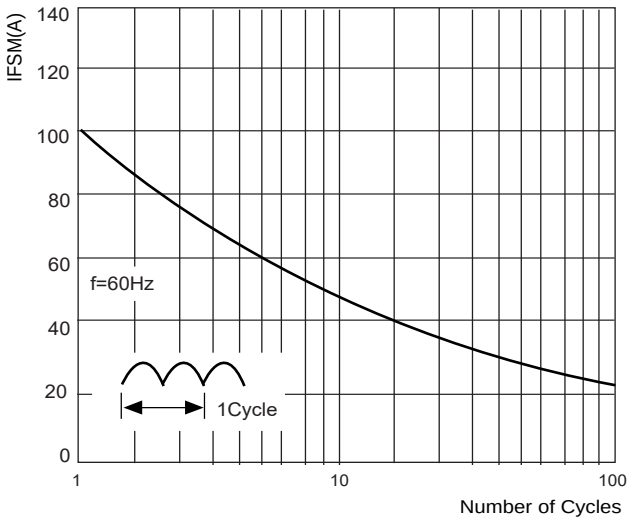


FIG.3: TYPICAL FORWARD CHARACTERISTICS

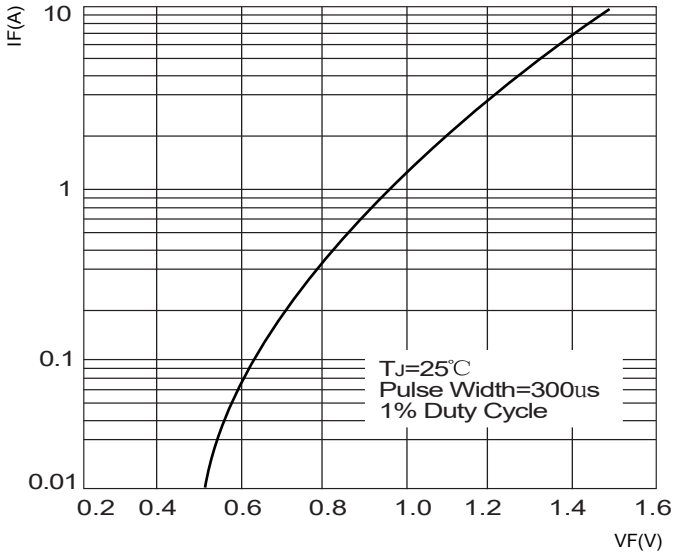


FIG.4 ：TYPICAL REVERSE CHARACTERISTICS

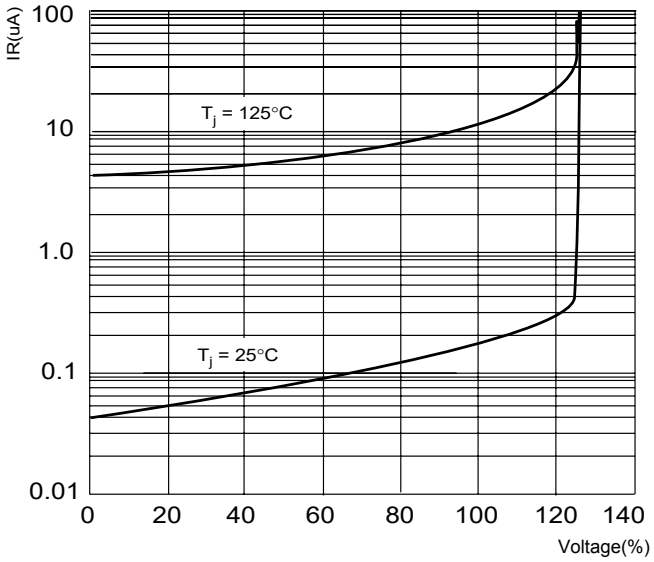
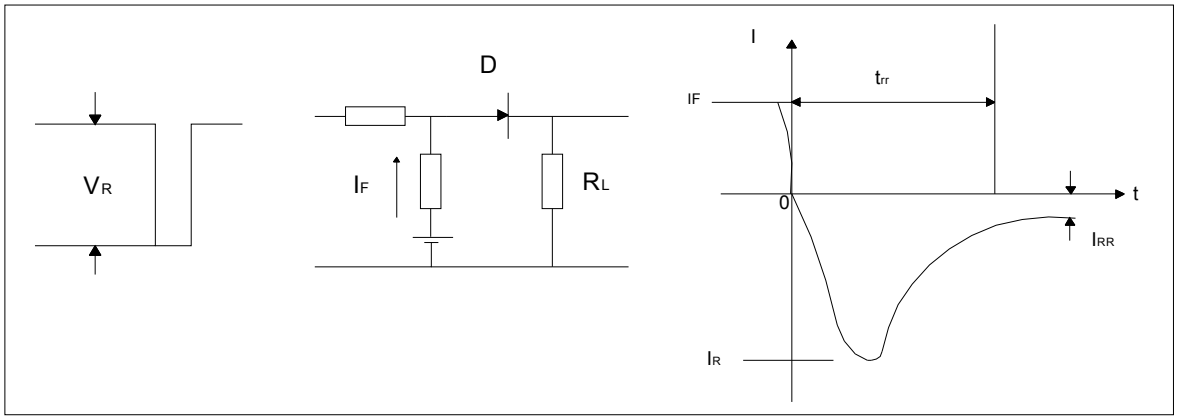
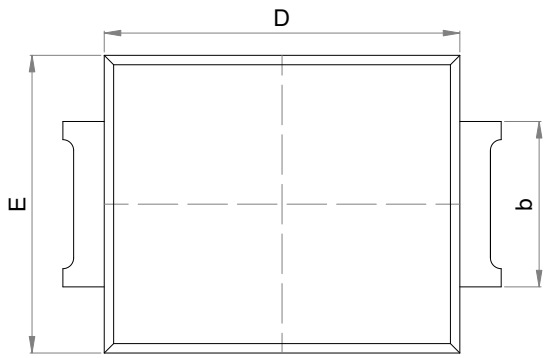


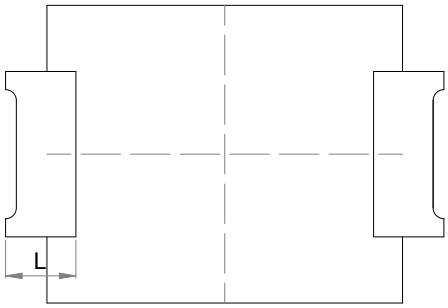
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



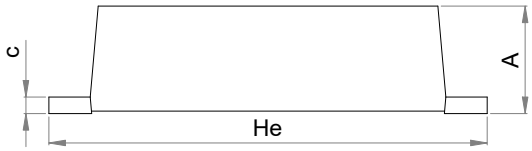
SMBF Package Outline Dimensions



Top View



Bottom View

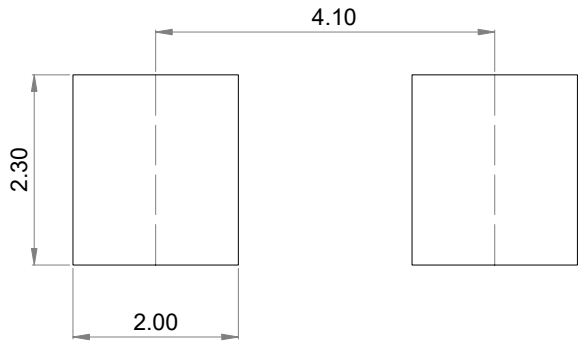


Side View

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.05	1.55	0.041	0.061
b	1.90	2.10	0.075	0.083
c	0.15	0.25	0.006	0.010
D	4.15	4.45	0.163	0.175
E	3.45	3.75	0.136	0.148
He	5.10	5.50	0.201	0.217
L	0.70	1.35	0.028	0.053

Notes：
1 Dimensions exclusive of mold gate burrs.
2 Dimensions exclusive of mold flash and cutting burrs.

SMBF Suggested Pad Layout



Controlling dimension：in millimeters.

NOTICE

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