SZCJ

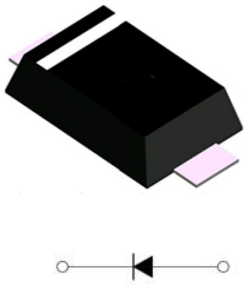
SMAF Plastic-Encapsulate Diodes

RS3AF THRU RS3MF **Fast Recovery Rectifier Diodes**

Features

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

SMAF



Applications

- Rectifier

Marking

- RS3X

  X：From A To M

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	RS3						
				AF	BF	DF	GF	JF	KF	MF
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= 120 ℃	3.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25 ℃	90						
Operation Junction and Storage Temperature Range	T_J,T_{STG}	℃		-55 ~ +150						

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		RS3						
					AF	BF	DF	GF	JF	KF	MF
Peak Forward Voltage	V_F	V	I_F=3.0A		1.3						
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	T_a =25℃	5						
	I_{RRM2}			T_a =100℃	50						
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		90						
	$R_{\theta J-L}$		Between junction and terminal		10						
Typical junction capactiance per diode	C_J	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		15						
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A,I_{rr}=0.25A		150				250	500	

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 Characteristics

FIG1. FORWARD CURRENT DERATING CURVE

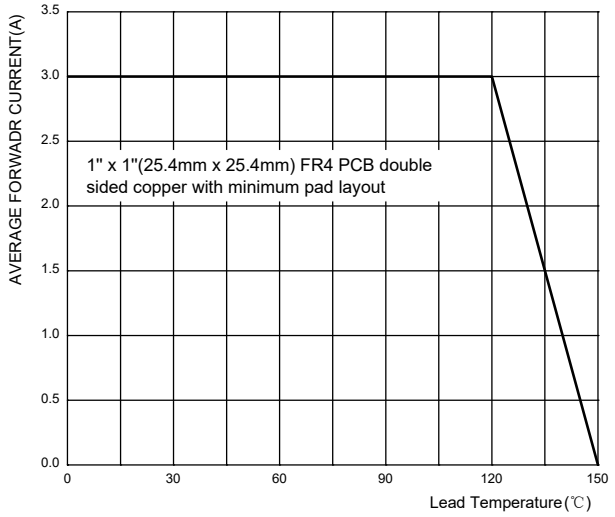


FIG2:Surge Forward Current Capadility

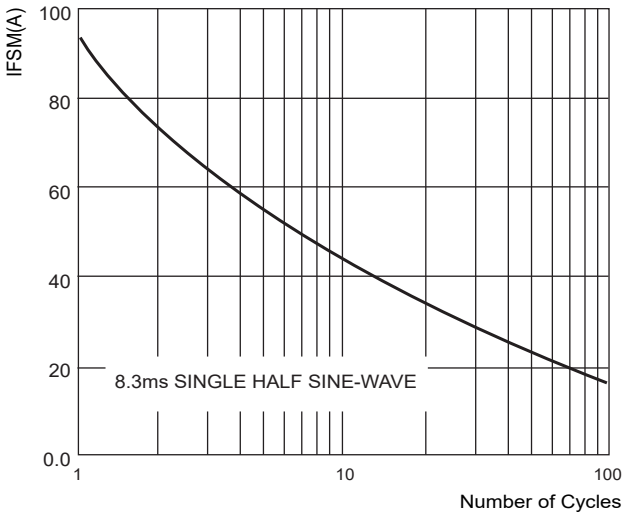


FIG.3: TYPICAL FORWARD CHARACTERISTICS

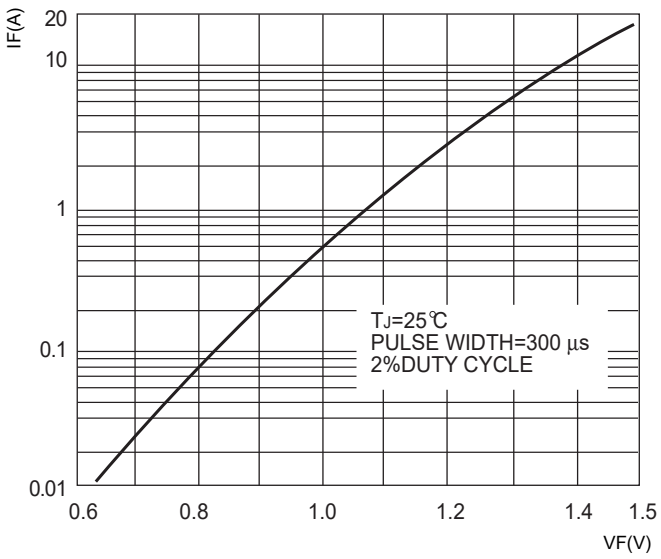


FIG.4 ：TYPICAL REVERSE CHARACTERISTICS

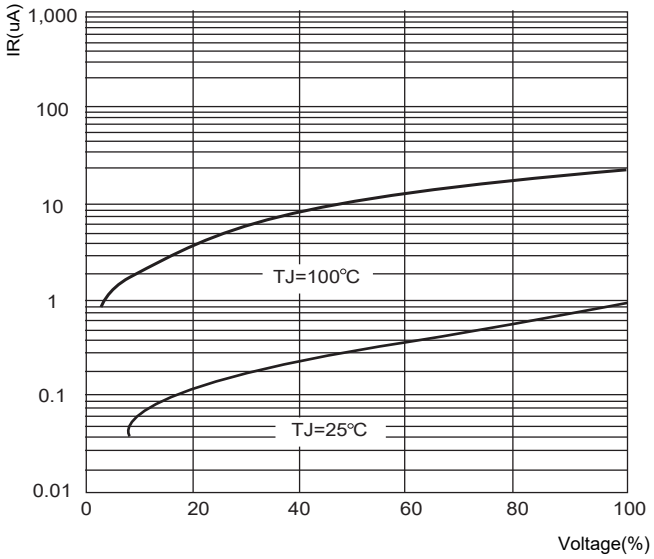
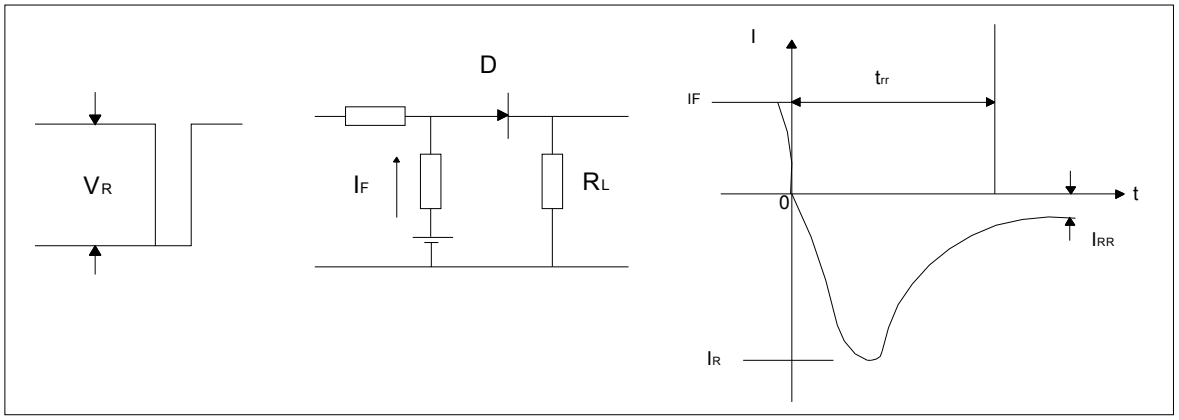
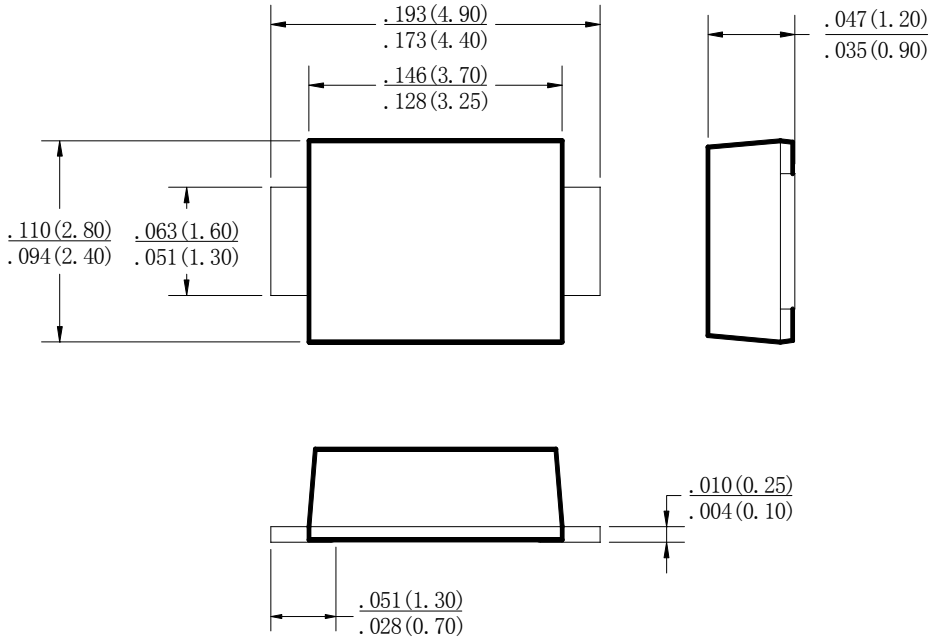


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

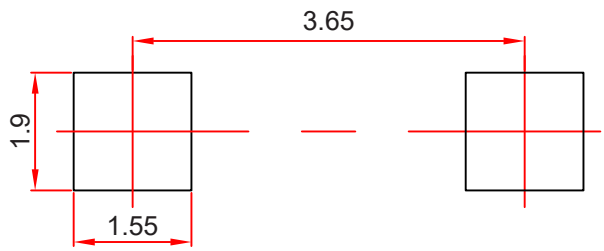


SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

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