RS2A THRU RS2M Fast Recovery Rectifier Diodes

Features

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

SMBG

Applications

- Rectifier

Marking

- RS2X

X : From A To M

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	RS2						
				A	B	D	G	J	K	M
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, T_L=75℃	2.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	60						
Operation Junction and Storage Temperature Range	T_J,T_{STG}	℃		-55 ~ +150						

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		RS2						
					A	B	D	G	J	K	M
Peak Forward Voltage	V_F	V	I_F=2.0A		1.3						
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A,I_{rr}=0.25A		150				250	500	
Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM}	Ta =25℃	2.5						
	I_{RRM2}			Ta =100℃	200						
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		50						
	$R_{\theta J-L}$		Between junction and terminal		40						

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas

Typical Characteristics

FIG.1 : FORWARD CURRENT DERATING CURVE

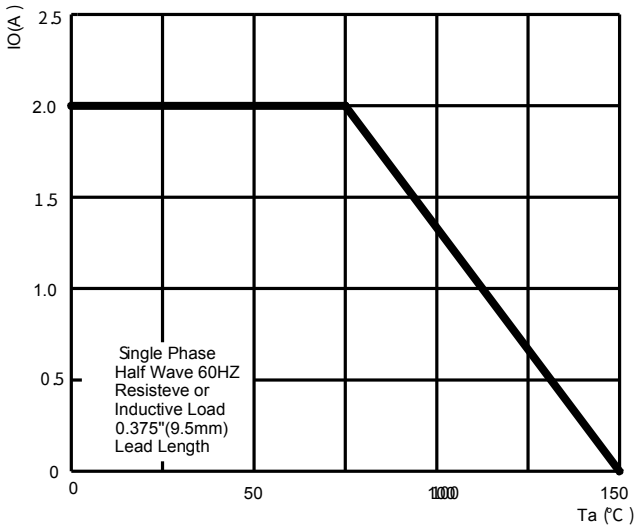


FIG.2 : MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

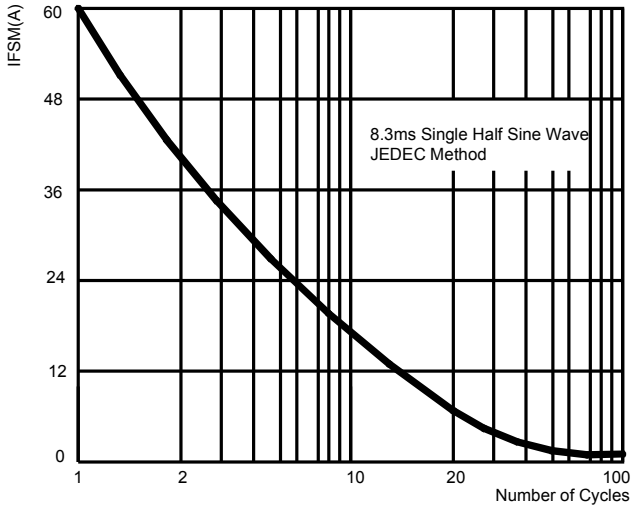


FIG.3: TYPICAL FORWARD CHARACTERISTICS

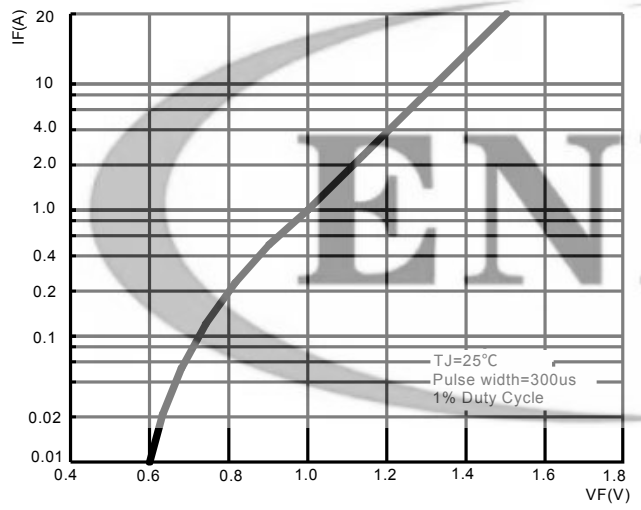


FIG.4 : TYPICAL REVERSE CHARACTERISTICS

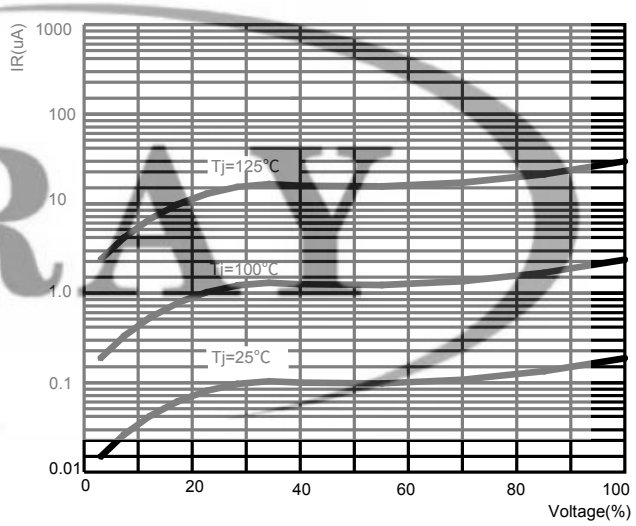
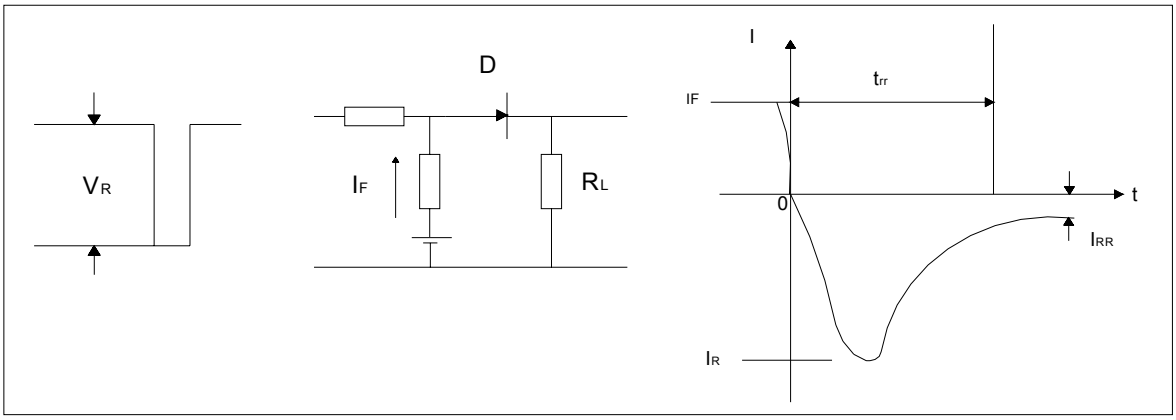
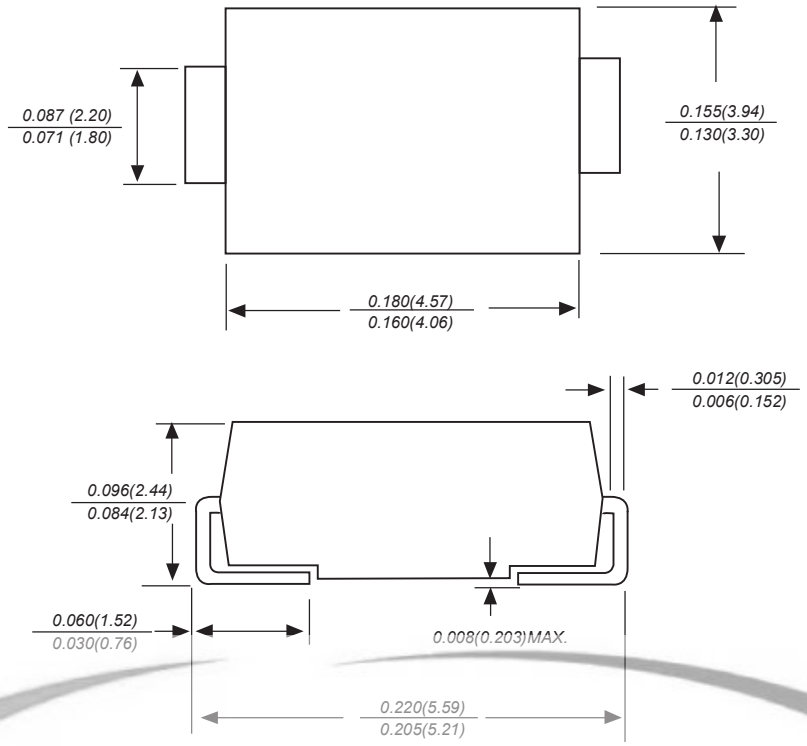


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



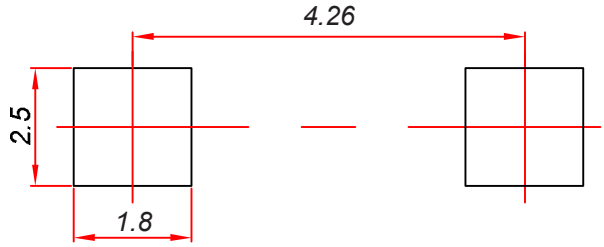
SMB Package Outline Dimensions



Dimensions in inches and (millimeters)

ENRAY

SMB Suggested Pad Layout



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