High Efficient Rectifier Diodes

Features

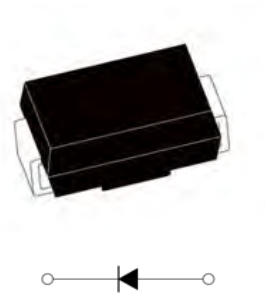
$I_{F(AV)}$ 1A

V_{RRM} 400V

High surge current capability

Polarity: Color band denotes cathode

SMA



Applications

Rectifier

Marking : US1G

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	US1G
Repetitive Peak Reverse Voltage	V_{RRM}	V		400
Maximum RMS Voltage	V_{RMS}	V		280
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, T_L=75℃	1.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	30
Operation Junction and Storage Temperature Range	T_J,T_{STG}	℃		-55 ~ +150

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		US1G
Peak Forward Voltage	V_F	V	I_F=1.0A		1.3
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A,I_{rr}=0.25A		50
Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM}	Ta =25℃	5
	I_{RRM2}			Ta =125℃	50
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		55
	$R_{\theta J-L}$		Between junction and terminal		25

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

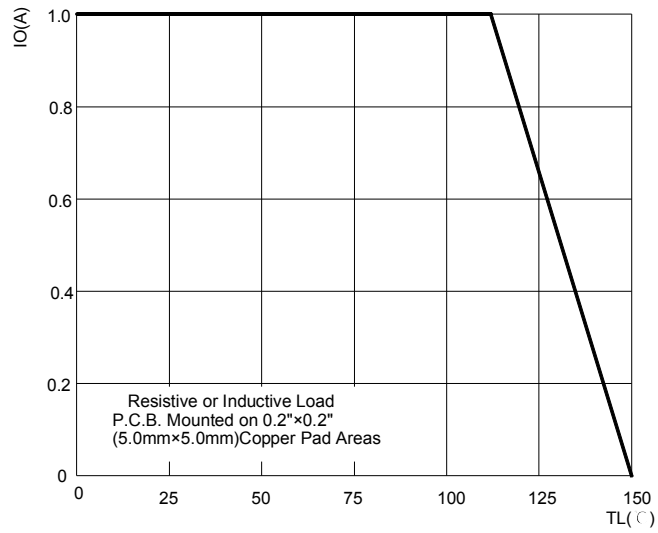


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

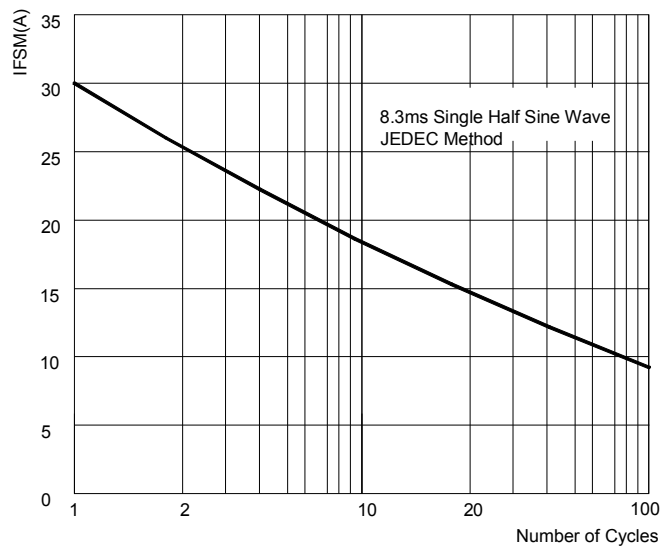


FIG.3: TYPICAL FORWARD CHARACTERISTICS

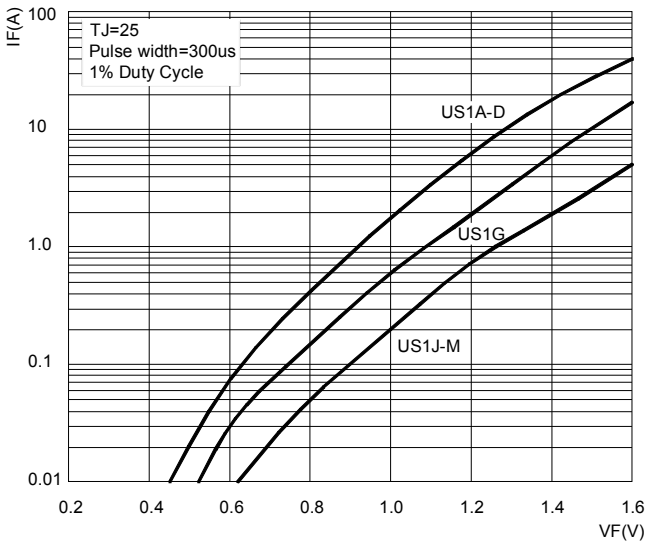


FIG.4：TYPICAL REVERSE CHARACTERISTICS

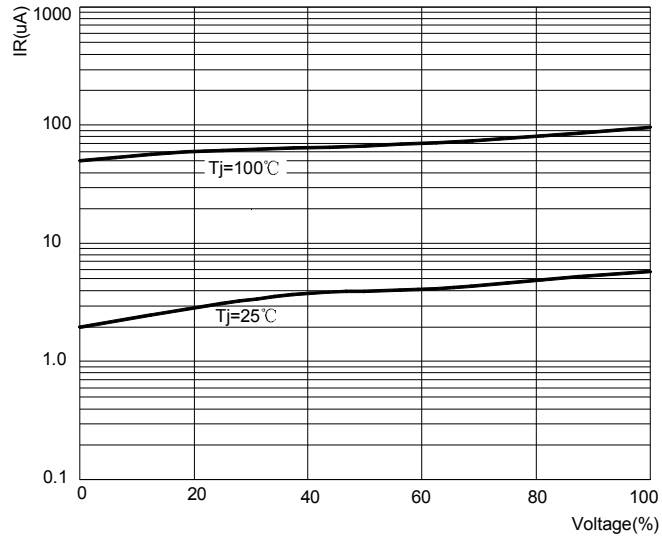
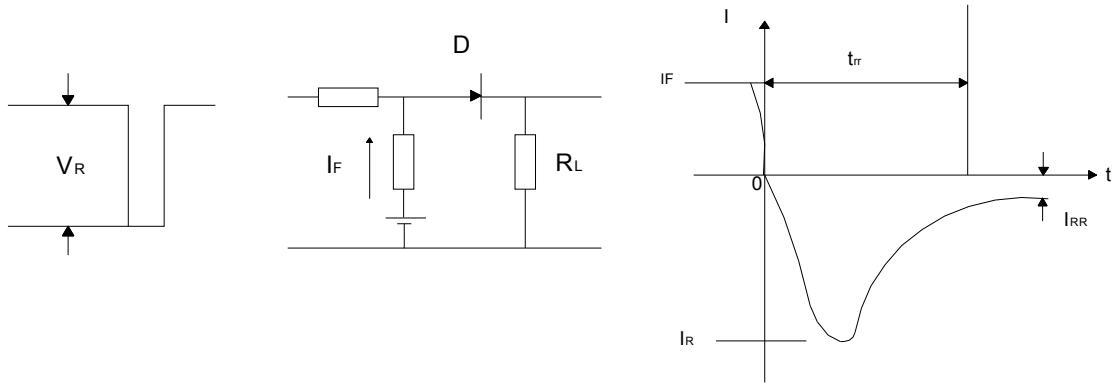
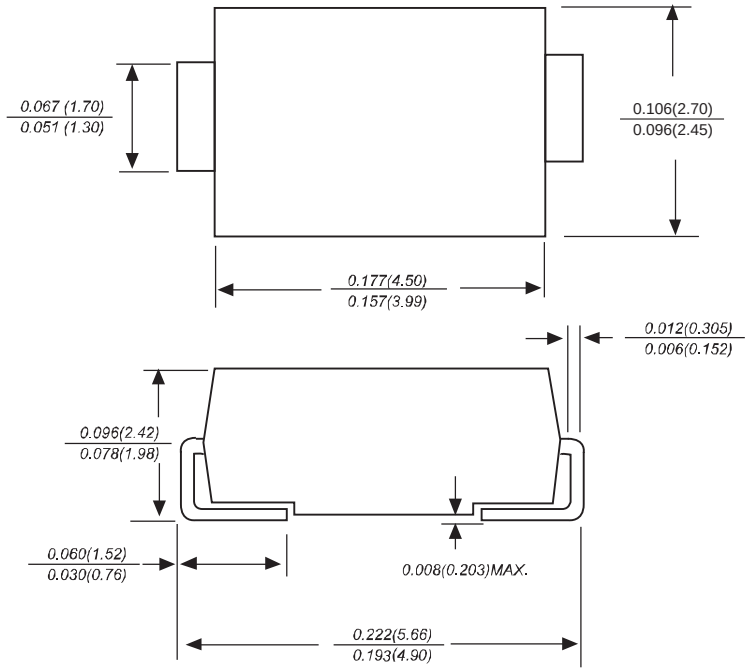


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

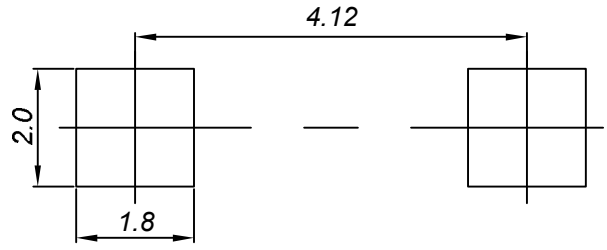


SMA Package Outline Dimensions



Dimensions in inches and (millimeters)

SMA Suggested Pad Layout



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