



FEATURES

- Average Forward Current: $I_{F(AV)}=1A$
- Polarity: Color band denotes cathode



SMAF

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
US1AF-US1MF	SMAF	US1★F	10000



★:From A-M

MAXIMUM RATINGS (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Test Conditions	US1						
				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, $T_L=115^\circ C$	1.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ C$	30						
Operation Junction and Storage Temperature Range	T_J, T_{STG}	$^\circ C$		-55 ~ +150						

ELECTRICAL CHARACTERISTICS (Ta=25 unless otherwise specified)

Item	Symbol	Unit	Test Condition	US1						
				AF	BF	DF	GF	JF	KF	MF
Peak Forward Voltage	V_F	V	$I_F=1.0A$	1.0			1.3	1.7		
Maximum reverse recovery time	t_{rr}	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	50				75		
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25^\circ C$						
	I_{RRM2}			$T_a=125^\circ C$						
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ C/W$	Between junction and ambient	75						
	$R_{\theta J-L}$		Between junction and terminal	27						

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

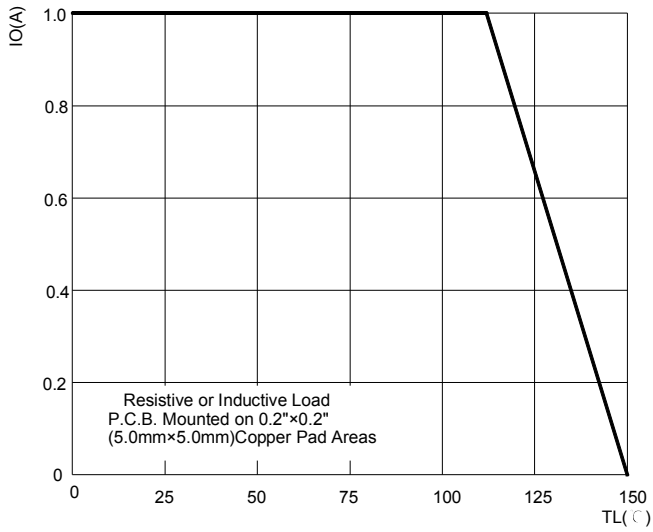


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

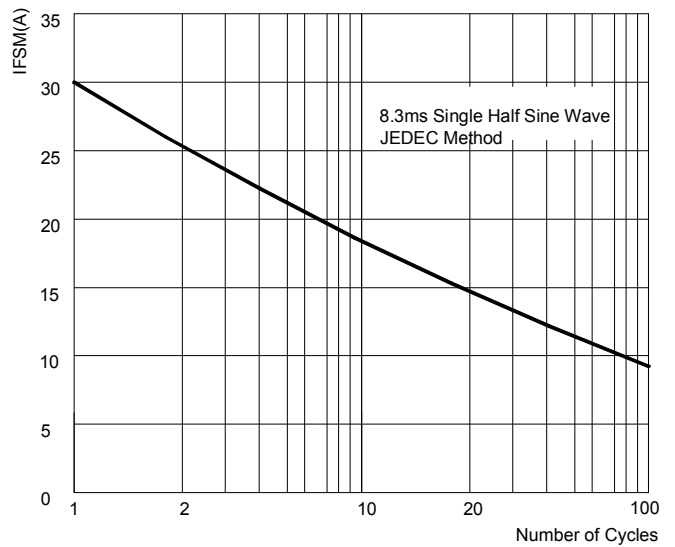


FIG.3: TYPICAL FORWARD CHARACTERISTICS

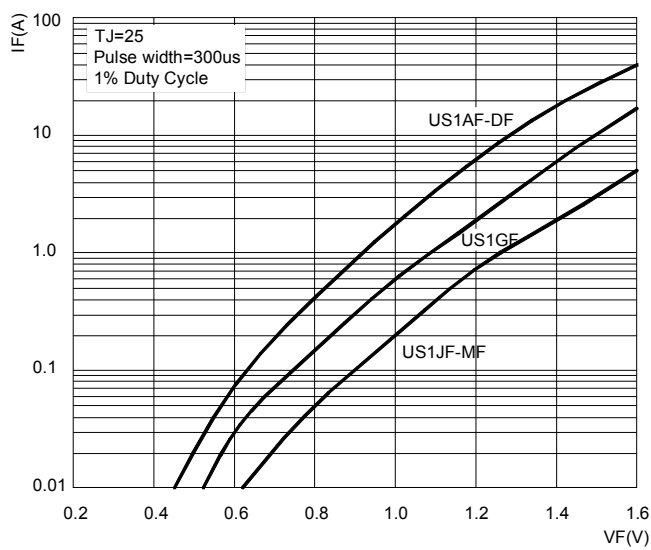


FIG.4: TYPICAL REVERSE CHARACTERISTICS

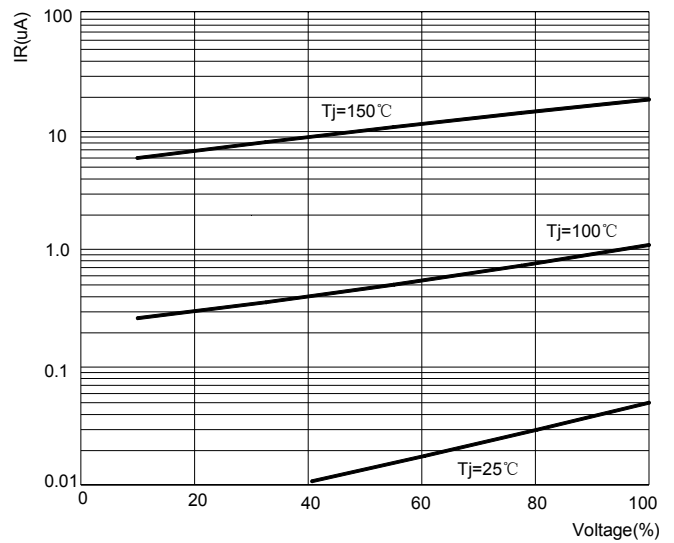
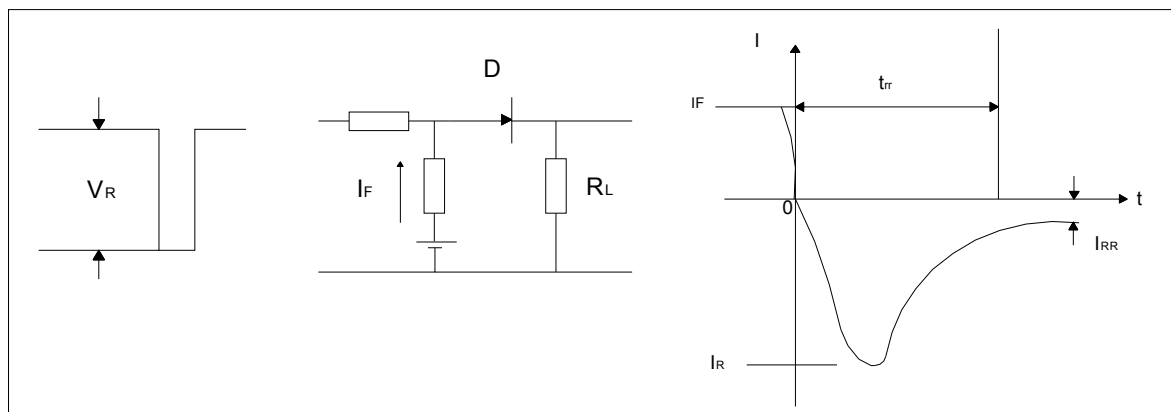
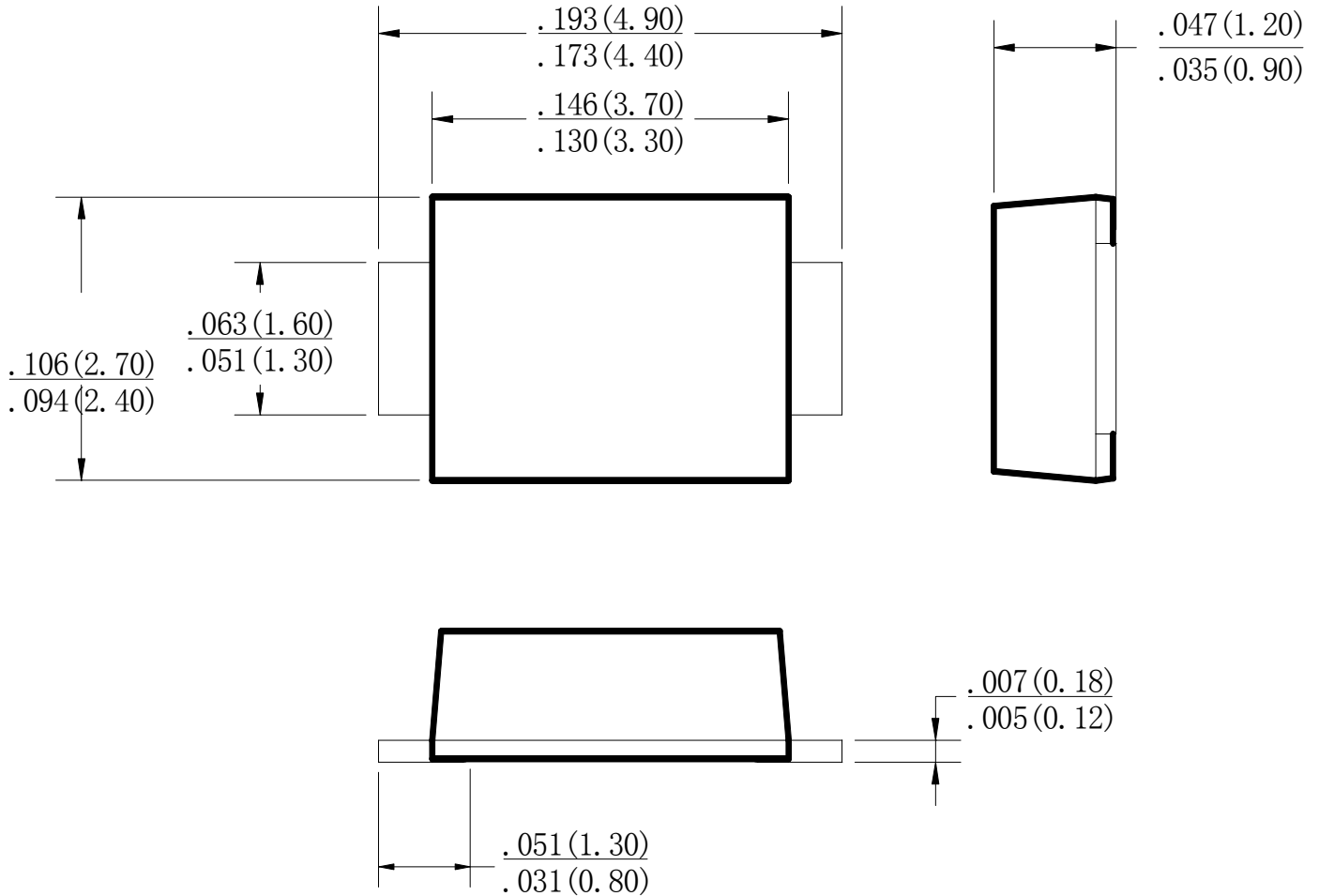


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)



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