

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℃	5						
	T _a =125℃			100							
Thermal Resistance(Typical)	R _{θJ-A}	℃/W	Between junction and ambient		75						
	R _{θJ-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

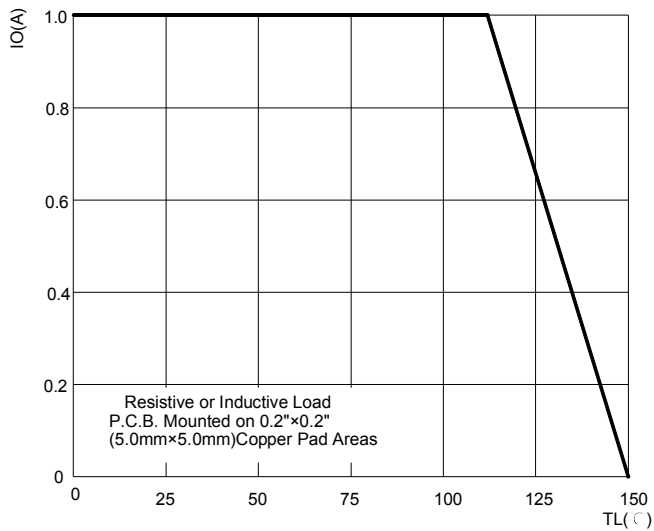


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

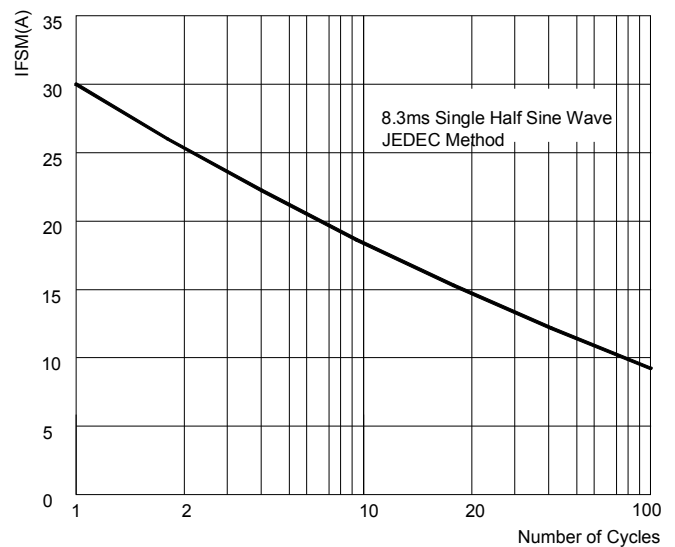


FIG.3: TYPICAL FORWARD CHARACTERISTICS

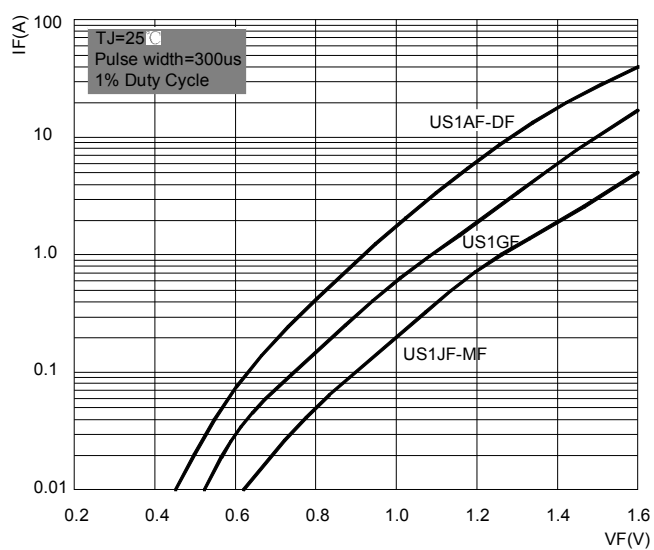


FIG.4: TYPICAL REVERSE CHARACTERISTICS

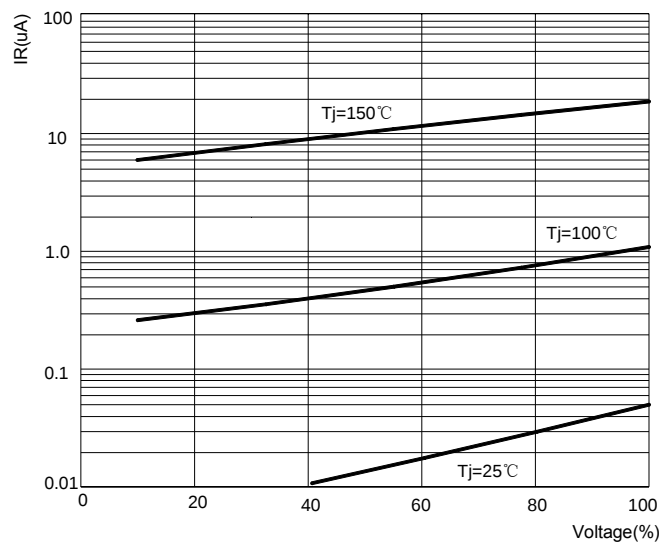
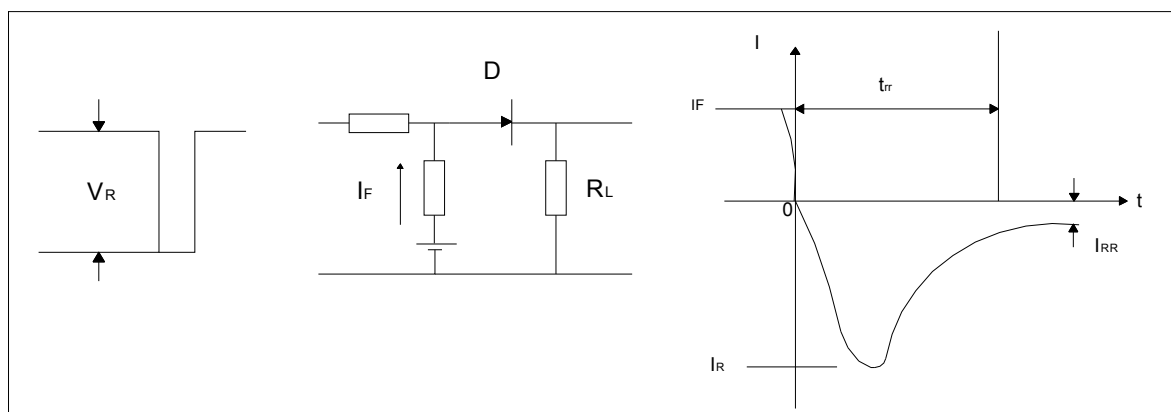
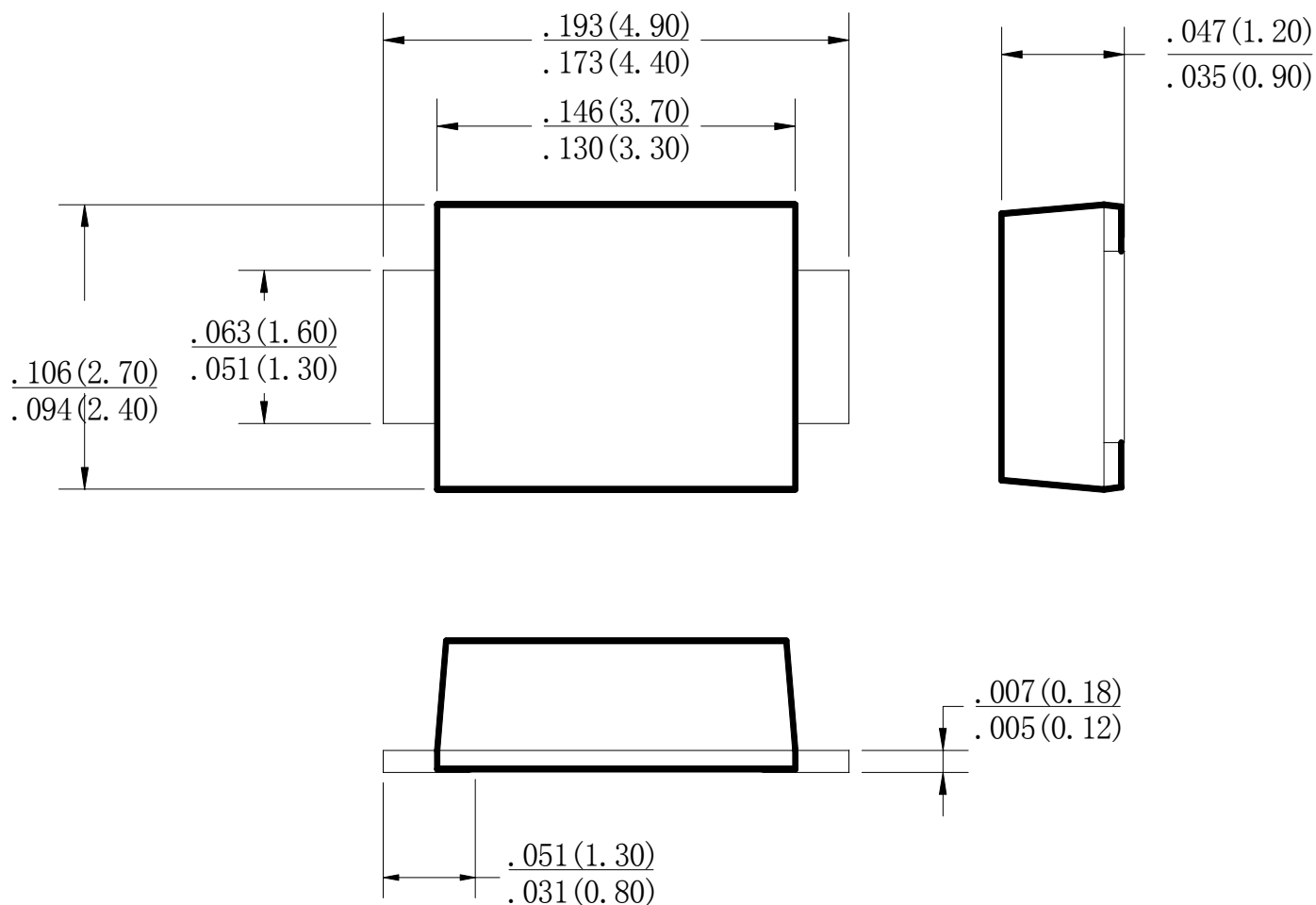


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)