



### FEATURES

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



SMA

### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
ES1A-ES1J	SMA	ES1★	2000

★:FromA-J



### MAXIMUM RATINGS (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Test Conditions	ES1							
				A	B	C	D	E	G	H	J
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		50	100	150	200	300	400	500	600
Maximum RMS Voltage	$V_{RMS}$	V		35	70	105	140	210	280	350	420
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_L=75^\circ C$	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	ES1							
				A	B	C	D	E	G	H	J
Peak Forward Voltage	$V_F$	V	$I_F=1.0A$	0.95			1.25		1.70		
Maximum reverse recovery time	$t_{rr}$	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	35							
Peak Reverse Current	$I_{RRM1}$	$\mu A$	$V_{RM}=V_{RRM}$	$T_a=25^\circ C$		5					
	$I_{RRM2}$			$T_a=100^\circ C$		100					
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ C/W$	Between junction and ambient		85						
	$R_{\theta J-L}$		Between junction and terminal		35						

### 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

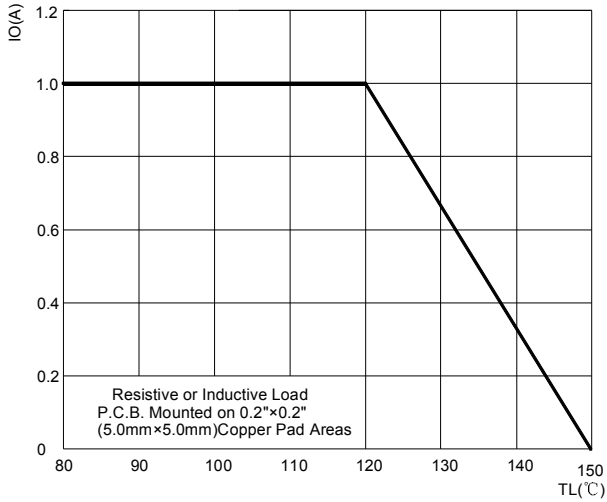


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

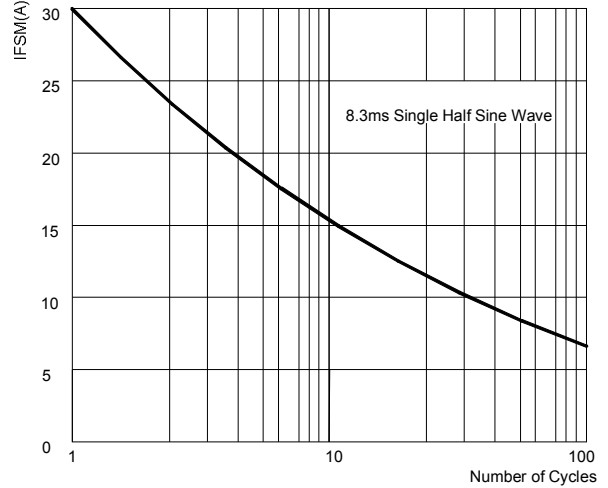


FIG.3: TYPICAL FORWARD CHARACTERISTICS

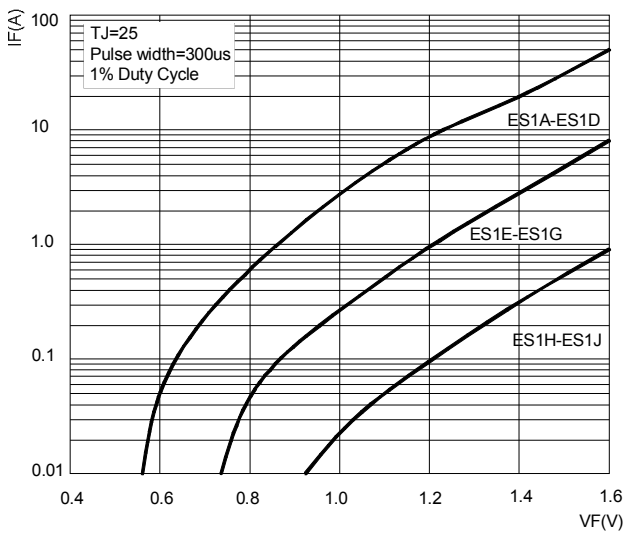


FIG.4: TYPICAL REVERSE CHARACTERISTICS

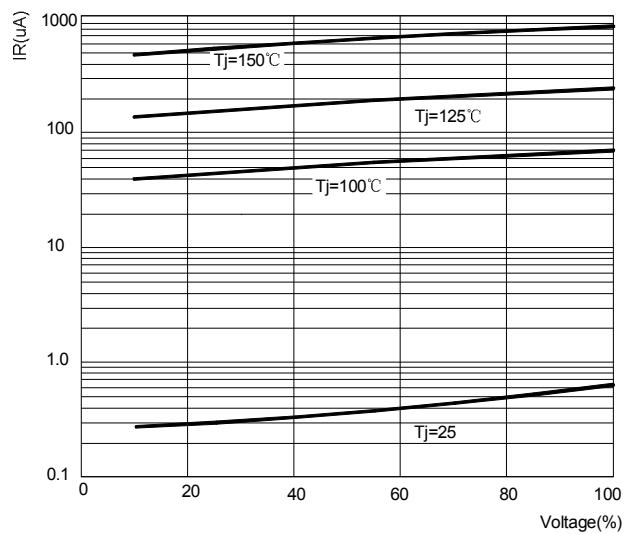
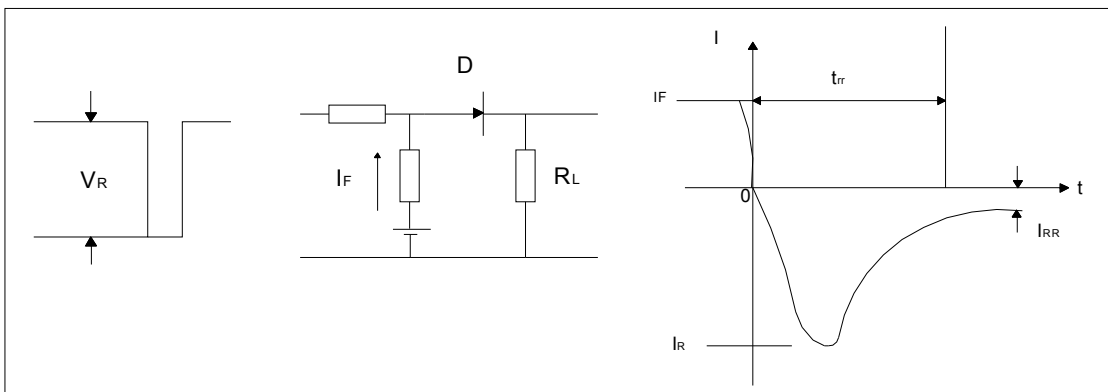
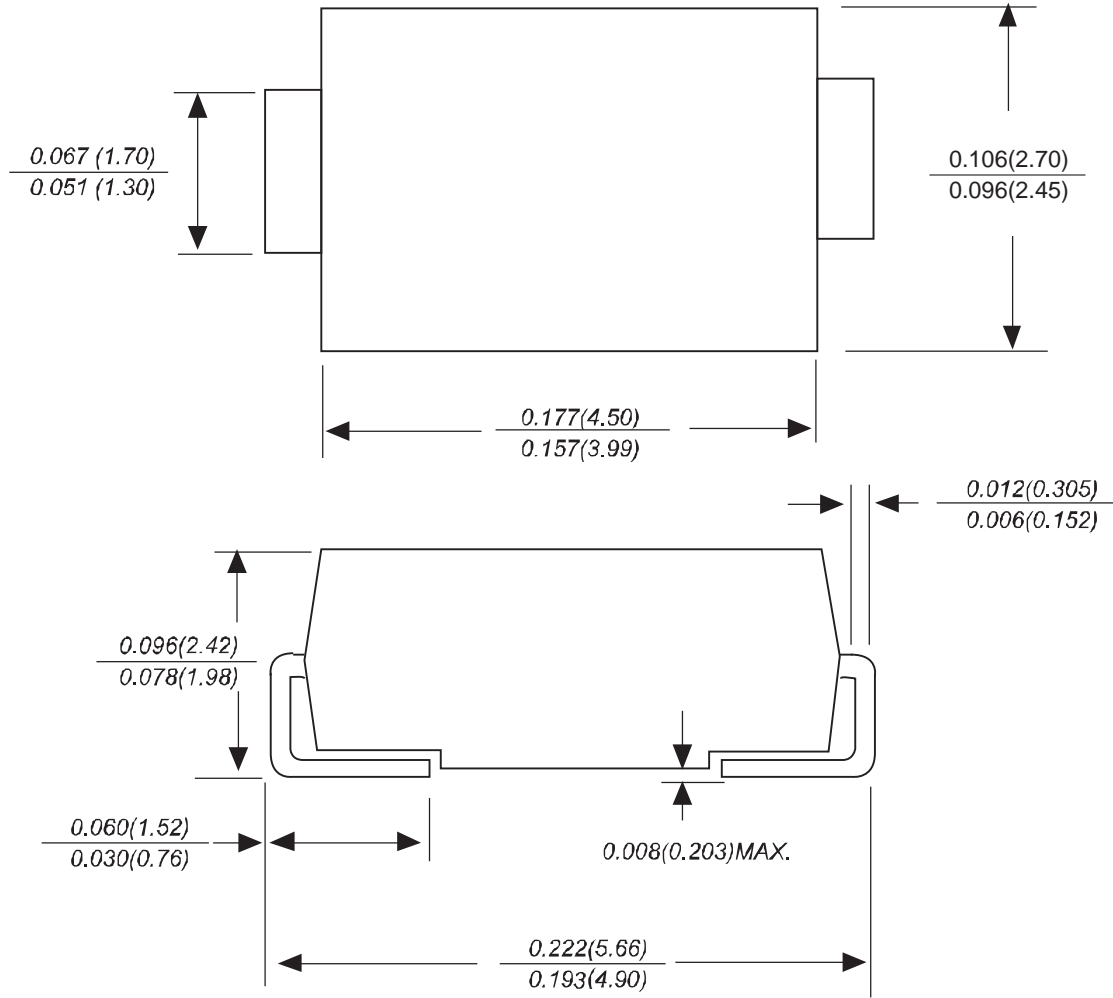


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





**SMA Package Outline Dimensions**



*Dimensions in inches and (millimeters)*



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