



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)
ES1M	SMA	ES1M	2000



MAXIMUM RATINGS (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Test Conditions	ES1M
Repetitive Peak Reverse Voltage	V_{RRM}	V		1000
Maximum RMS Voltage	V_{RMS}	V		700
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_L=75\text{ }^\circ\text{C}$	1.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25\text{ }^\circ\text{C}$	30
Operation Junction and Storage Temperature Range	T_J, T_{STG}	$^\circ\text{C}$		-55 ~ +150

ELECTRICAL CHARACTERISTICS (Ta=25 unless otherwise specified)

Item	Symbol	Unit	Test Condition	ES1M	
Peak Forward Voltage	V_F	V	$I_F=1.0A$	1.7	
Maximum reverse recovery time	t_{rr}	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	70	
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25\text{ }^\circ\text{C}$	5
	I_{RRM2}			$T_a=100\text{ }^\circ\text{C}$	100
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	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-TYPICAL FORWARD CHARACTERISTICS

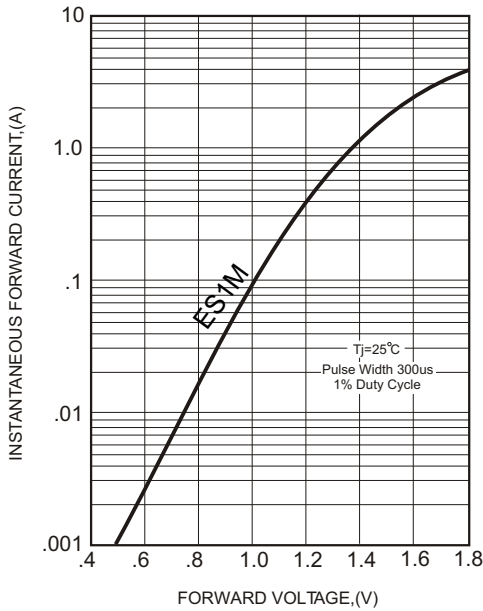


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

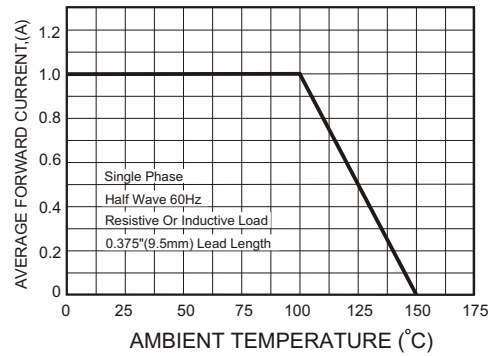


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

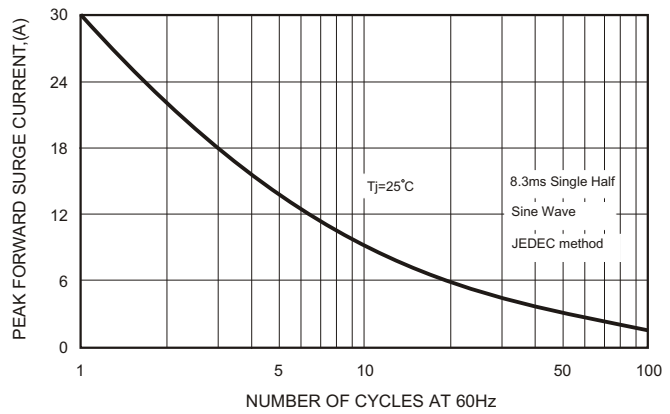
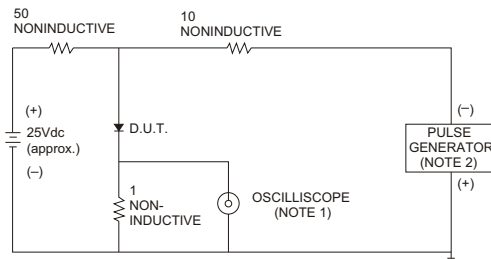
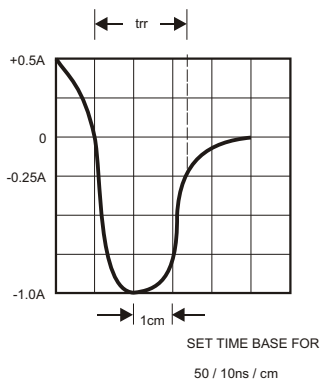
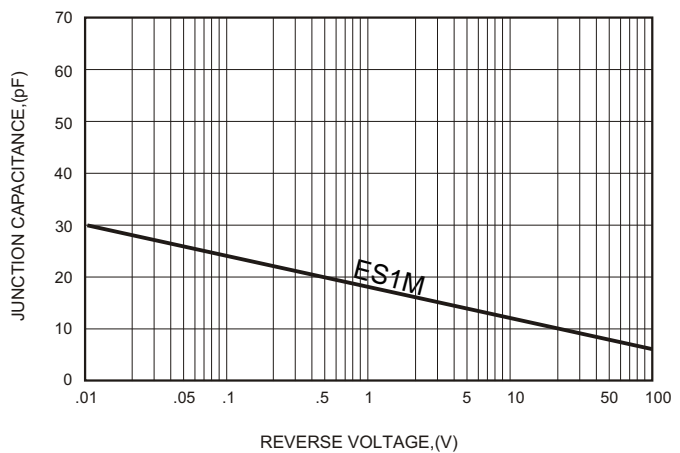


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



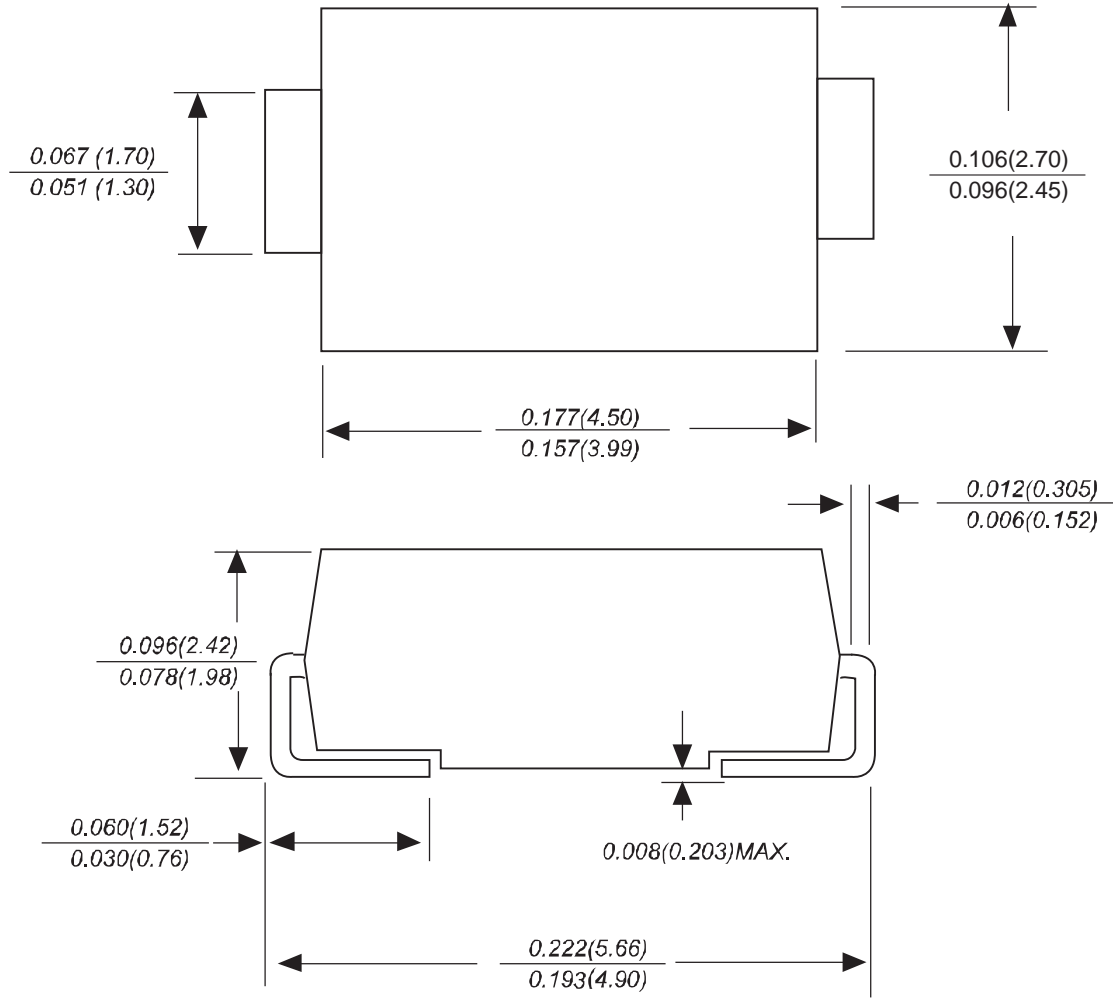
NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

FIG.5-TYPICAL JUNCTION CAPACITANCE





SMA Package Outline Dimensions



Dimensions in inches and (millimeters)



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