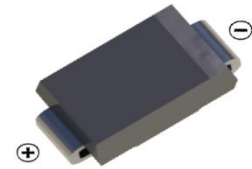
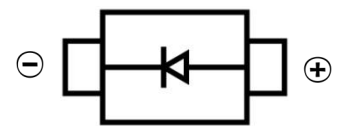


**SUPER FAST RECOVERY RECTIFIER DIODE**
**FEATURES**

- Low Reverse voltage leakage current
- Glass passivated junction
- High forward surge current capability
- Low forward voltage drop
- Super Fast Recovery Time for High Efficiency
- Surface Mount device


**SMA**
**MECHANICAL DATA**

- Case: SMAF
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.027 grams (approximate)


**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

Parameter	symbol	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	210	210	280	420	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	30							A
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	85							°C/W
Reverse Recovery Time(@IF=0.5A, IR=1A, IRR=0.25A)	trr	35							nS
Operating junction temperature range	T <sub>J</sub>	-55 to +150							°C
Storage temperature range	T <sub>STG</sub>	-55 to +150							°C

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

Parameter	symbol	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	Unit	
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.00				1.25		1.68	V	
Maximum DC reverse current T <sub>A</sub> = 25°C at rated DC blocking voltage T <sub>A</sub> = 125°C	I <sub>R</sub>	5				100			μA	
Typical junction capacitance at 4.0V, 1MHz	CD	15								PF

**SUPER FAST RECOVERY RECTIFIER DIODE**

FIG.1: FORWARD CURRENT DERATING CURVE

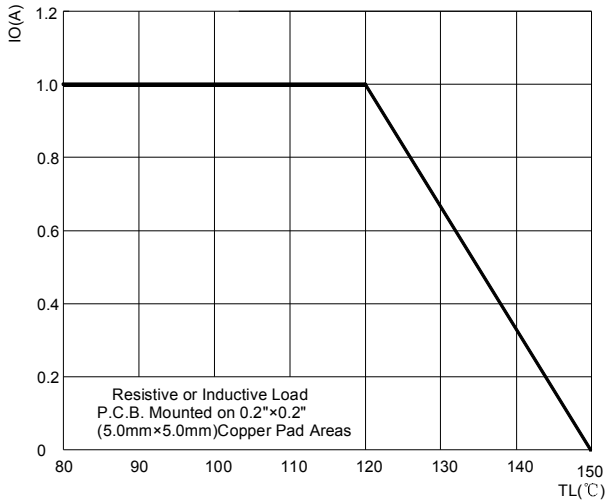


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

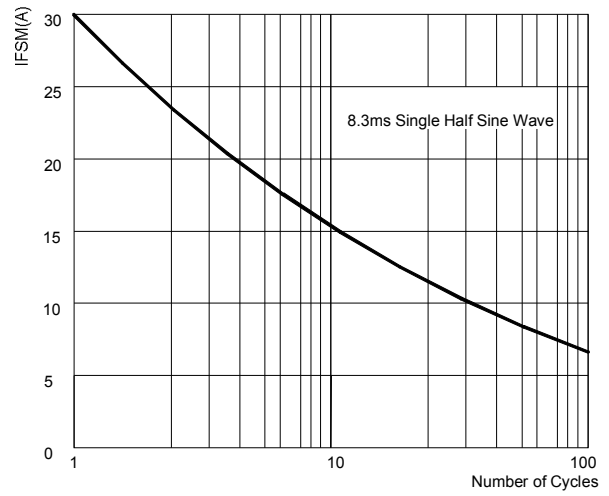


FIG.3: TYPICAL FORWARD CHARACTERISTICS

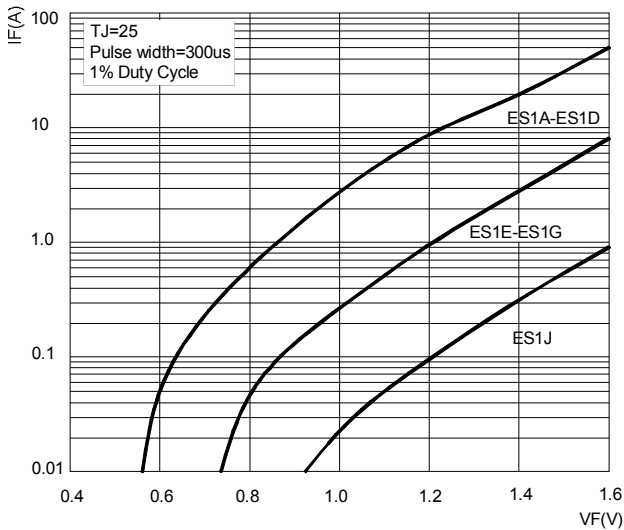


FIG.4: TYPICAL REVERSE CHARACTERISTICS

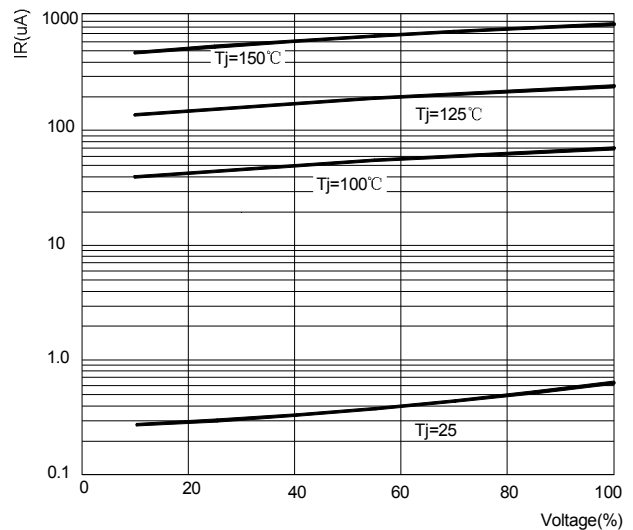
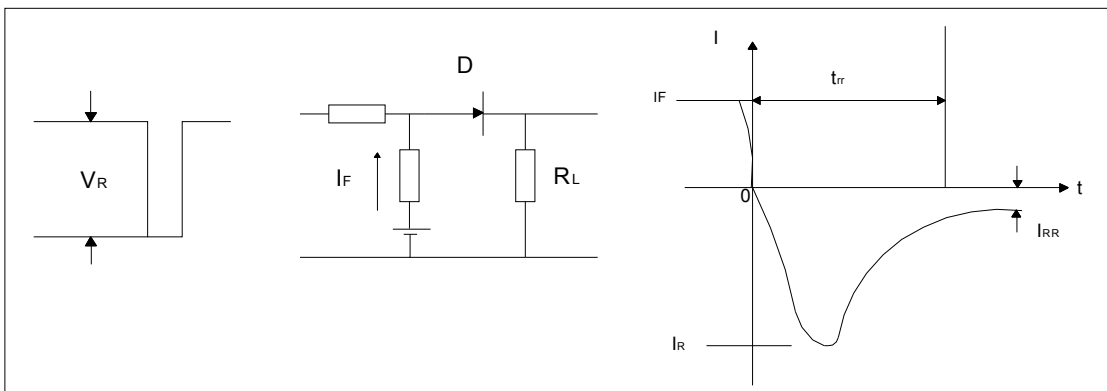
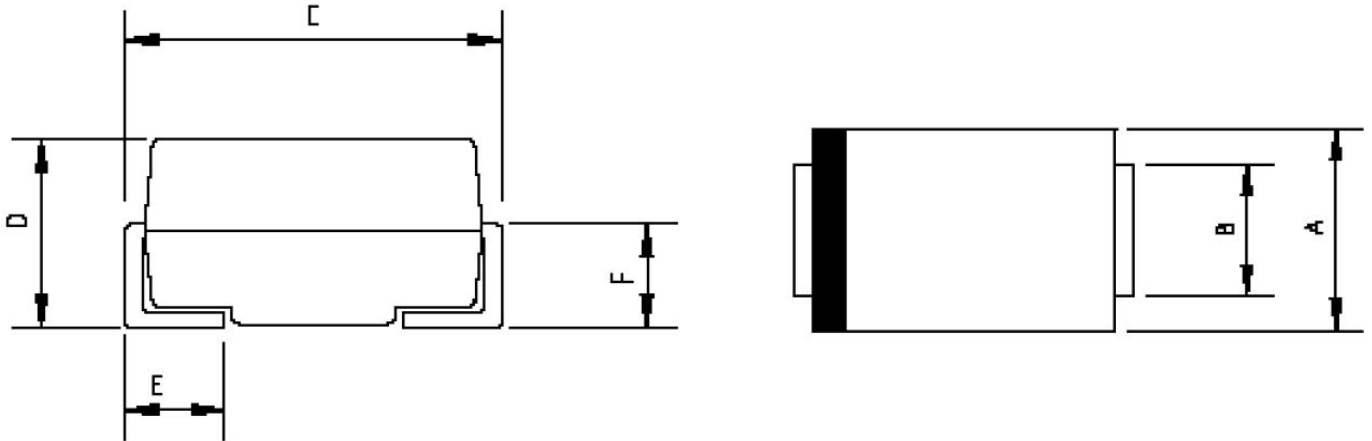


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



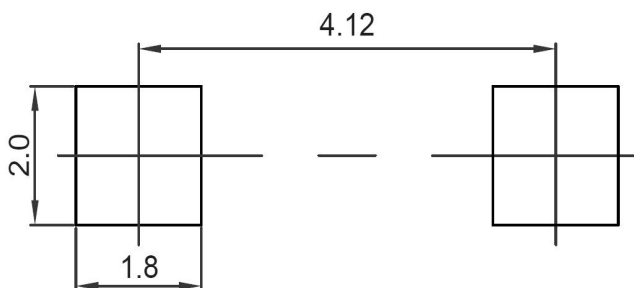
SUPER FAST RECOVERY RECTIFIER DIODE

SMA Package Outline Dimensions



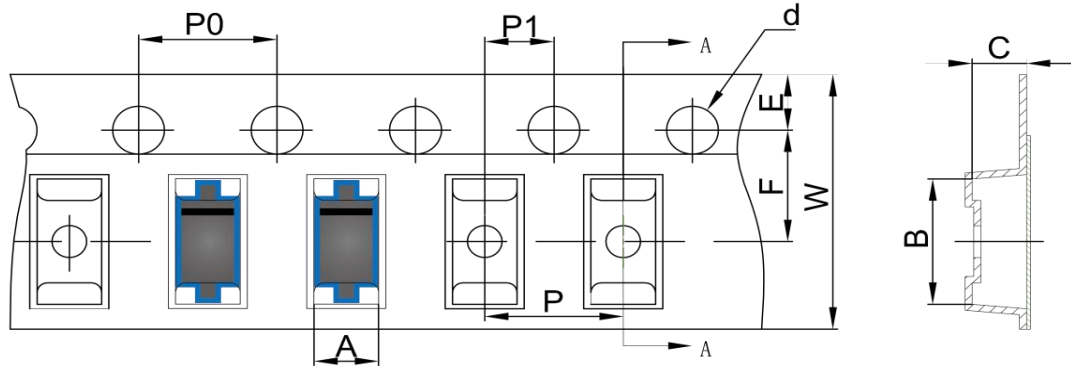
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.80	0.086	0.110
B	1.30	1.70	0.051	0.067
C	4.70	5.30	0.185	0.209
D	1.70	2.55	0.067	0.100
E	0.90	1.50	0.035	0.059
F	0.90	1.50	0.035	0.059

SMA Suggested Pad Layout

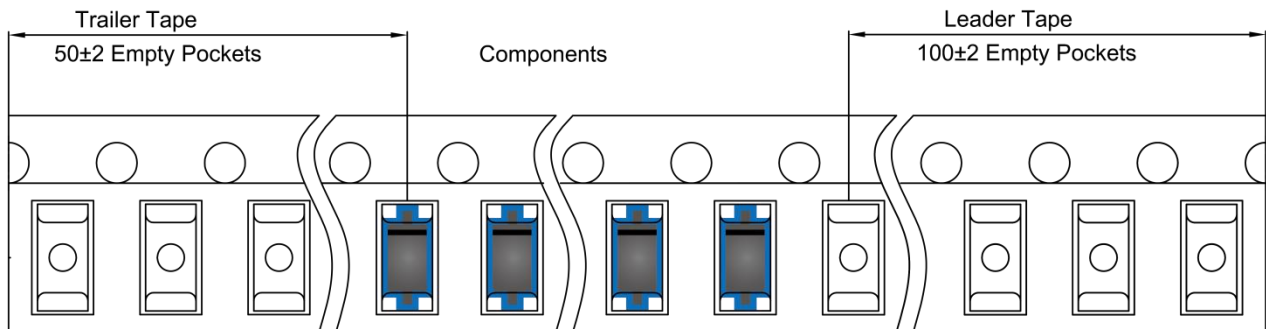
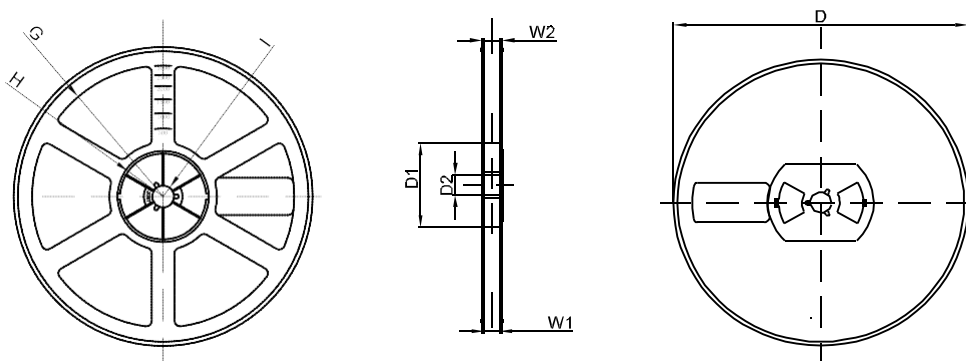


Note:

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

**SUPER FAST RECOVERY RECTIFIER DIODE**
**SMA Tape and Reel**
**SMA Embossed Carrier Tape**


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMA	2.89	5.35	2.68	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**SMA Tape Leader and Trailer**

**SMA Reel**


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1