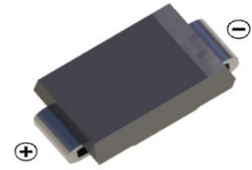
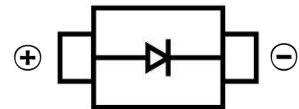


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- Small Surface Mount device
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications


**SMA**
**MECHANICAL DATA**

- Case: SMA(DO-214AC)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.065 grams (approximate)


**MAXIMUM RATINGS AND CHARACTERISTICS( $T_A = 25^{\circ}\text{C}$  unless otherwise noted)**

Parameter	Symbol	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS510A	SS515A	SS520A	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V
DC Reverse Voltage	V <sub>R</sub>	20	30	40	50	60	80	100	150	200	V
Mean rectifying current	I <sub>F</sub>	5.0									A
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I <sub>FSM</sub>	100									A
Thermal Resistance From Junction To Ambient(1)	R <sub>θJA</sub>	60									°C/W
	R <sub>θJL</sub>	22									
Junction Temperature	T <sub>J</sub>	-55 ~+125									°C
Storage Temperature	T <sub>STG</sub>	-55 ~+125			-55 ~+150						°C

**ELECTRICAL CHARACTERISTICS ( $T_A = 25^{\circ}\text{C}$  unless otherwise specified)**

Parameter	Symbol	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS510A	SS515A	SS520A	Unit	Conditions
Forward voltage	V <sub>F</sub>	0.60			0.70		0.85		0.90		V	I <sub>F</sub> =5A
Reverse current	I <sub>R</sub>	0.5					0.1				mA	V=V <sub>R</sub> ,T <sub>a</sub> =25°C
		10					5				mA	V=V <sub>R</sub> ,T <sub>a</sub> =100°C
Junction capacitance	C <sub>J</sub>	265			210		150		100		pF	V <sub>R</sub> =4V,f=1MHZ

**NOTE:**

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

SCHOTTKY BARRIER DIODE

Typical Characteristics

FIG.1:  $I_O$ - $T_L$  Curve

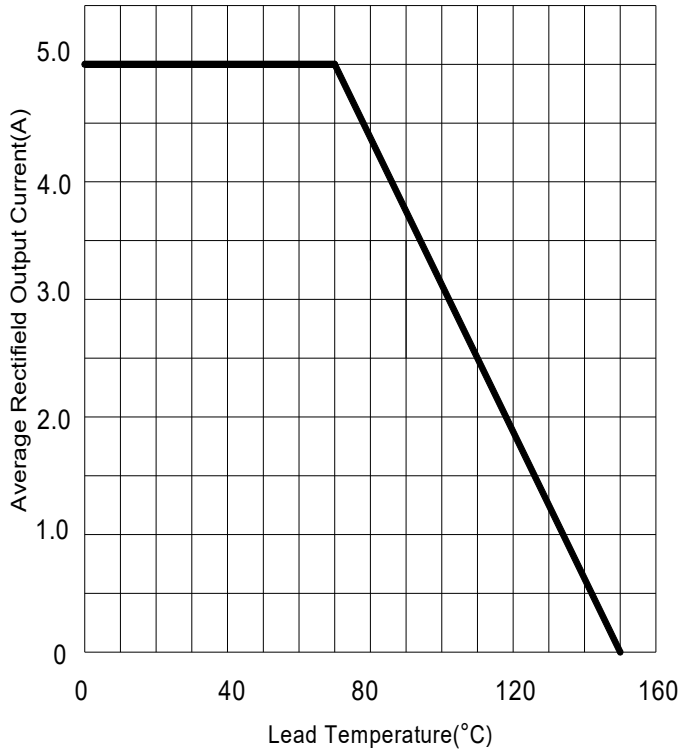


FIG.2: Surge Forward Current Capability

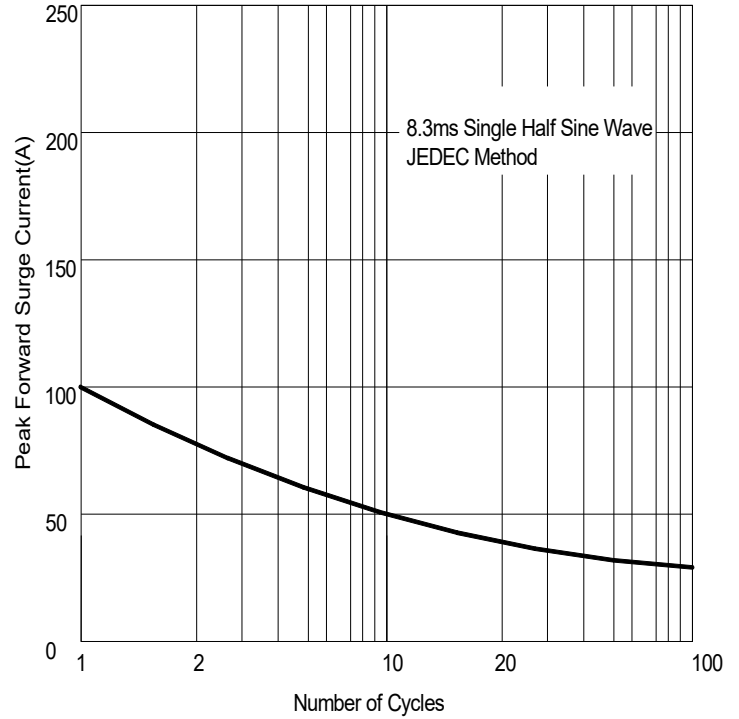


FIG.3: Typical Forward Characteristics

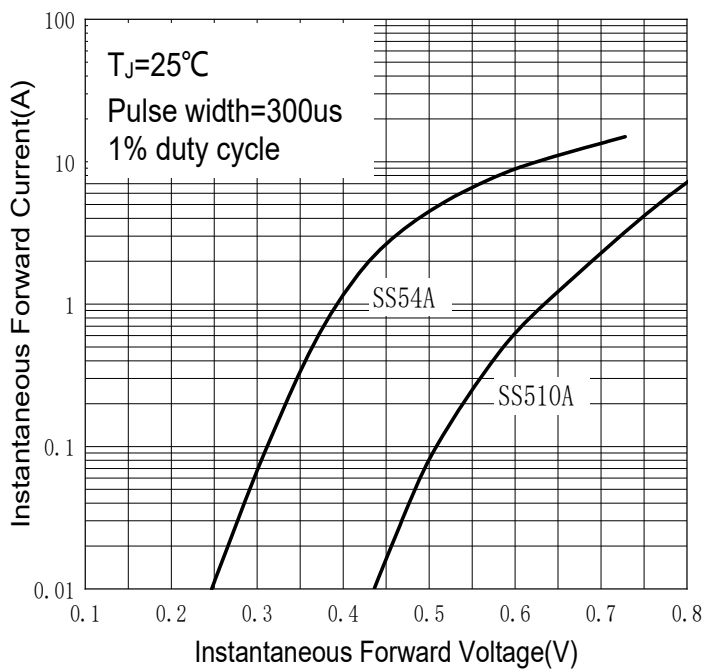
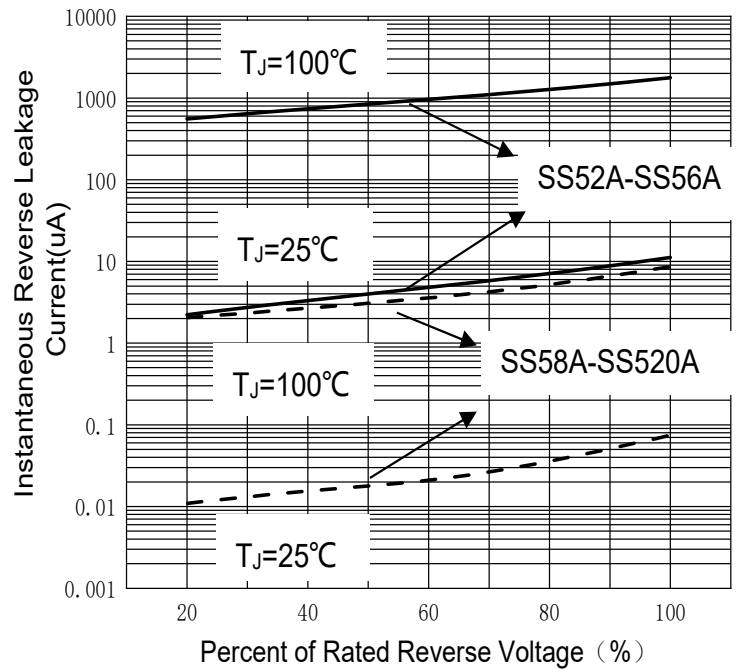
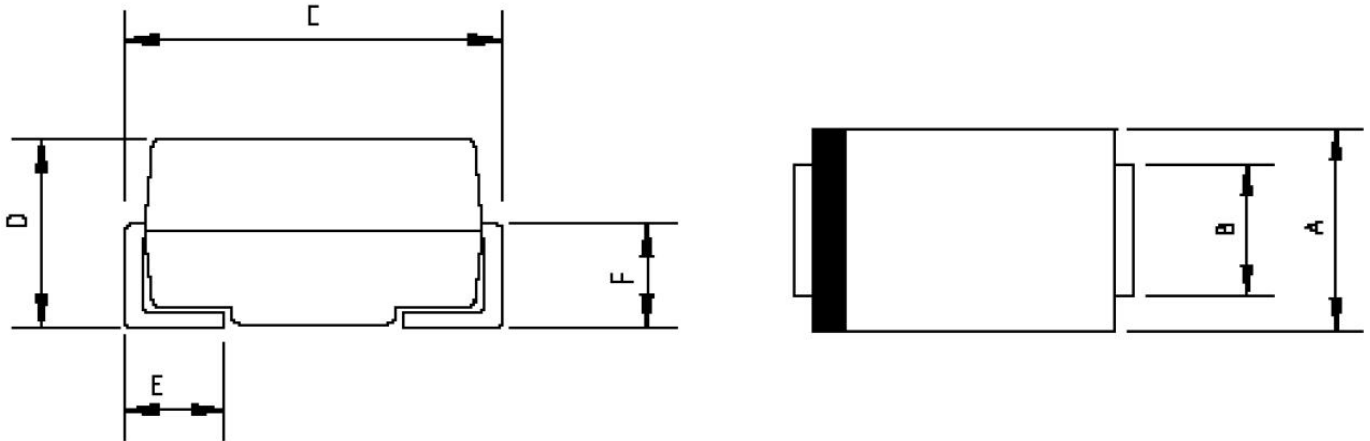


FIG.4: Typical Reverse Characteristics



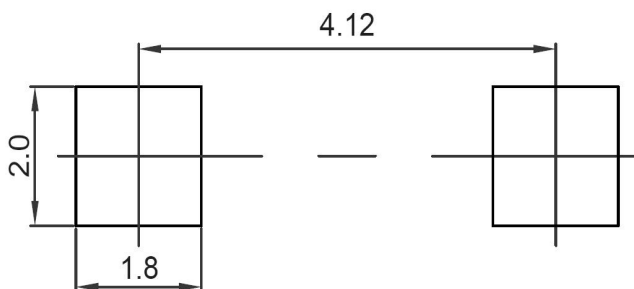
SCHOTTKY BARRIER DIODE

**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**



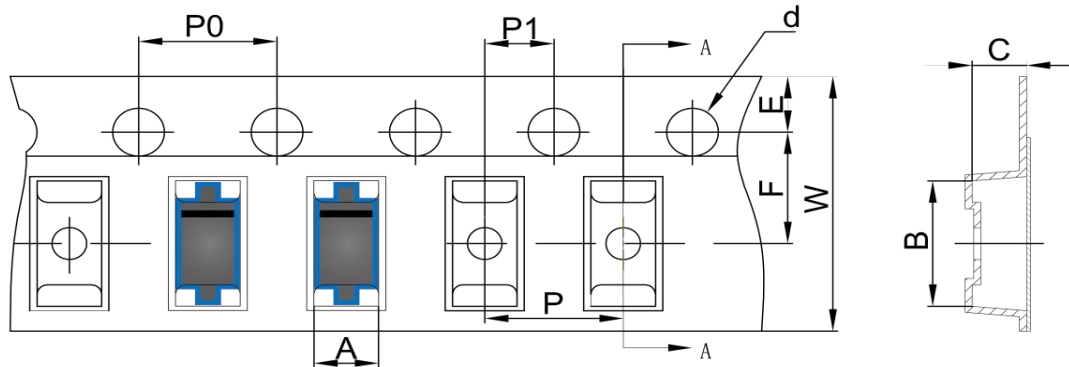
**Note:**

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

SCHOTTKY BARRIER DIODE

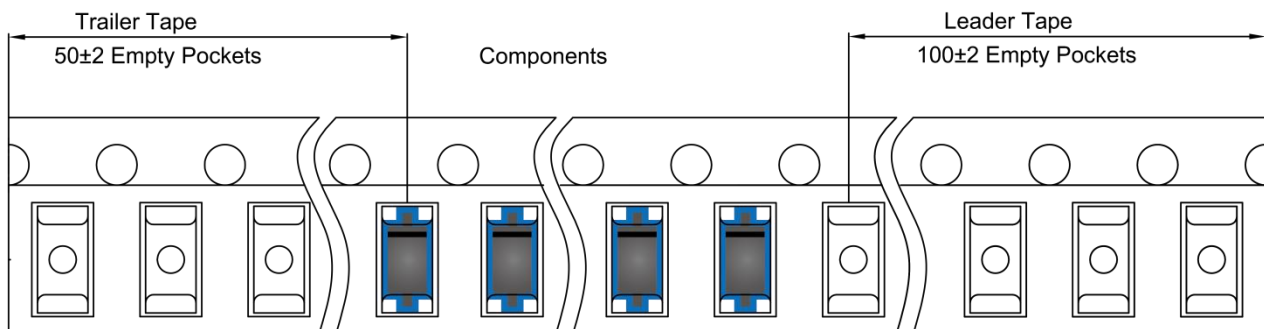
**SMA Tape and Reel**

**SMA Embossed Carrier Tape**

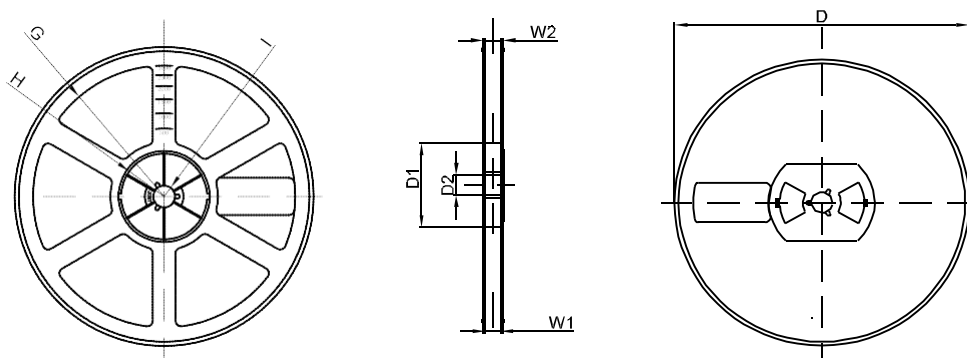


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMA	2.89	5.35	2.68	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**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

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