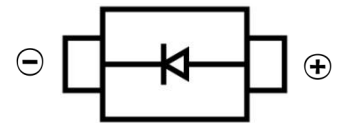


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- 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


**SMB**
**MECHANICAL DATA**

- Case: SMB(DO-214AA)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.088 grams (approximate)


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

Parameter	Symbol	SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220	Unit	
Marking		SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220		
Repetitive peak reverse	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V	
DC Reverse Voltage	V <sub>R</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	
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I <sub>FSM</sub>	50									A	
Mean rectifying current	I <sub>F</sub>	2.0									A	
Thermal Resistance	R <sub>θJA</sub>	75									°C/W	
Thermal Resistance	R <sub>θJL</sub>	17									°C/W	
Junction Temperature	T <sub>J</sub>	-55 ~+125				-55 ~+150						°C
Storage Temperature	T <sub>STG</sub>	-55 ~+150									°C	

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

Parameter	Symbol	SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220	Unit	Conditions	
Forward voltage	V <sub>F</sub>	0.55			0.70		0.85		0.95		V	I <sub>F</sub> =2A	
Reverse current T <sub>A</sub> =25°C	I <sub>R</sub>	0.5					0.1					mA	V=V <sub>R</sub>
Reverse current T <sub>A</sub> =100°C	I <sub>R</sub>	10			5.0						mA		
Junction capacitance	C <sub>J</sub>	130									pF	V=4V, f=1MHz	

Notes: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas

SCHOTTKY BARRIER DIODE

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

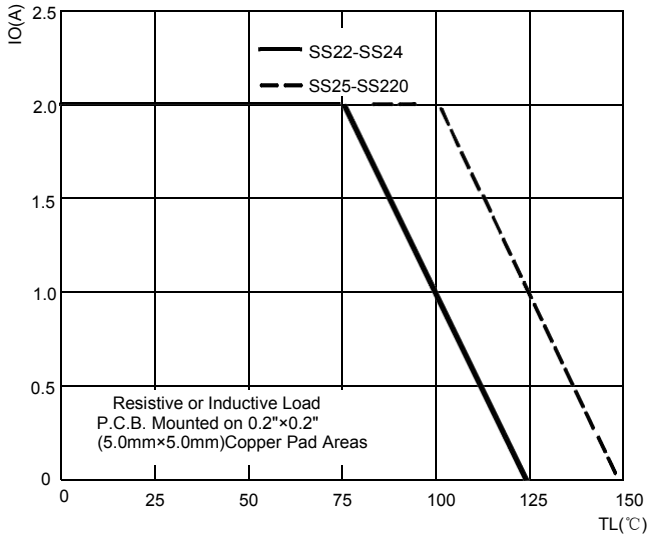


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

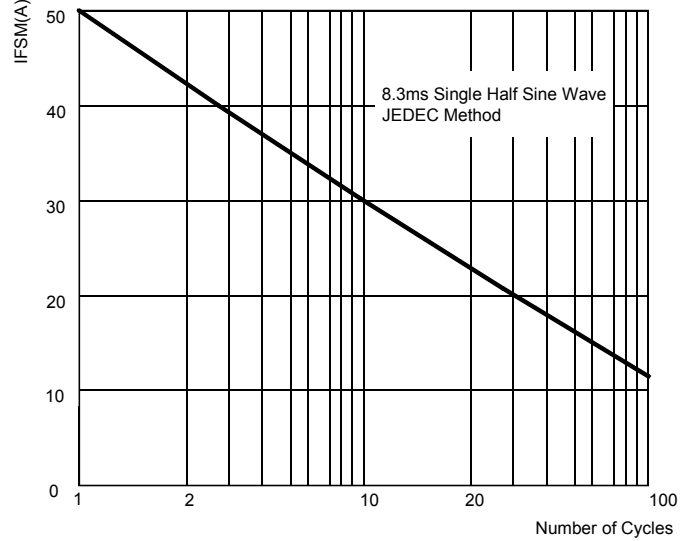


FIG.3: TYPICAL FORWARD CHARACTERISTICS

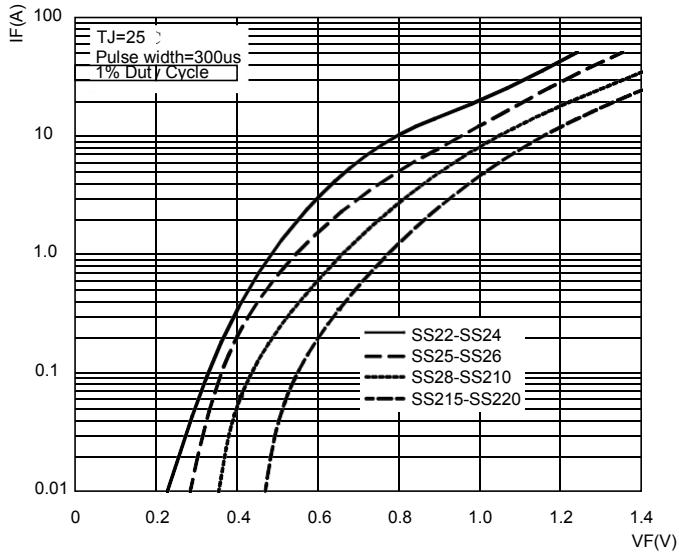
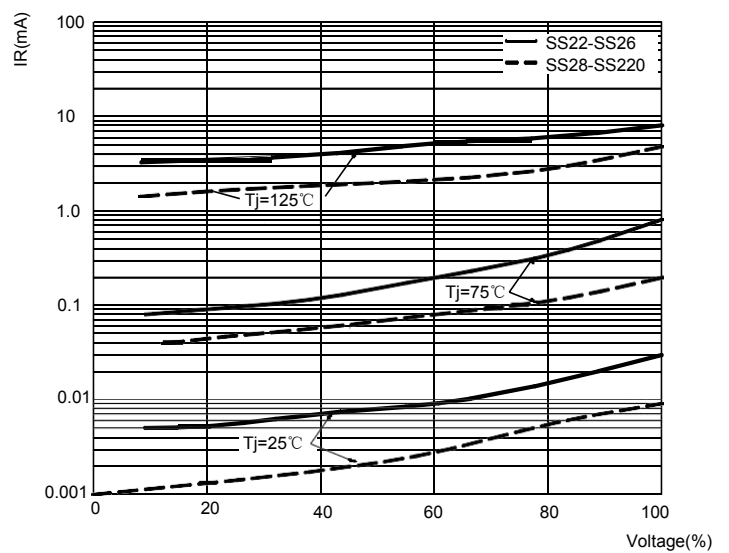
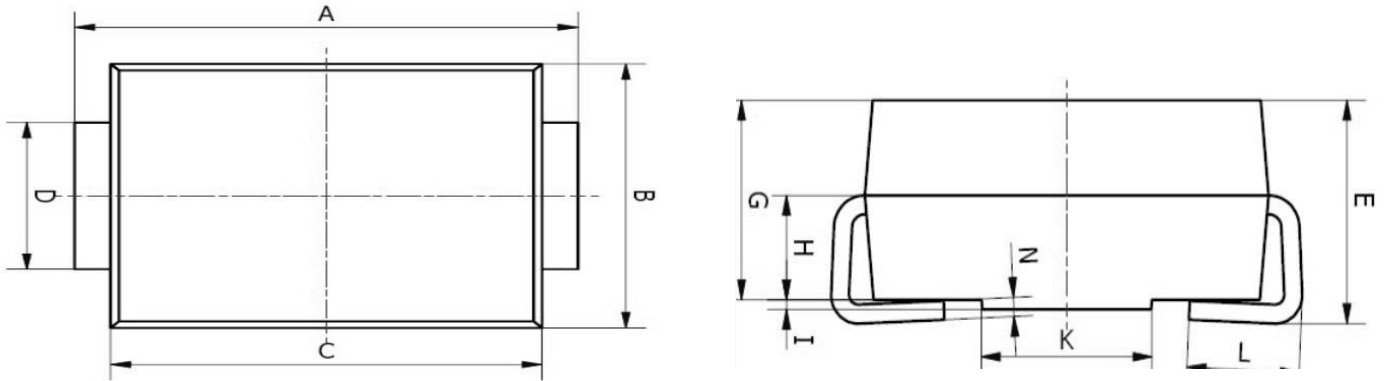
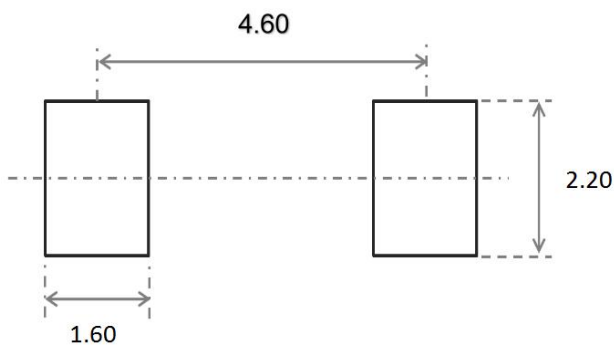


FIG.4: TYPICAL REVERSE CHARACTERISTICS

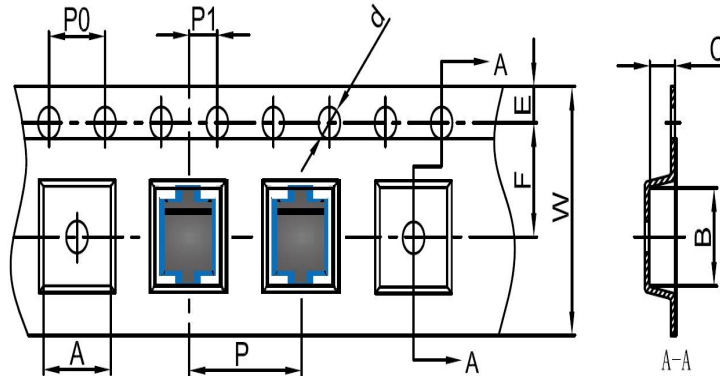


**SCHOTTKY BARRIER DIODE**
**SMB Package Outline Dimensions**


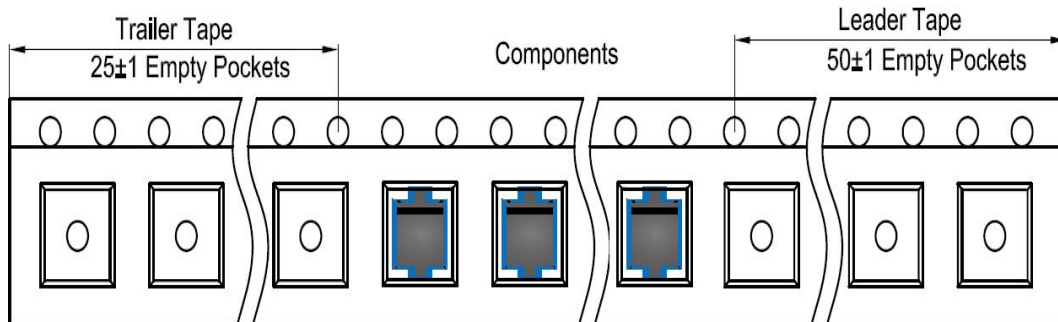
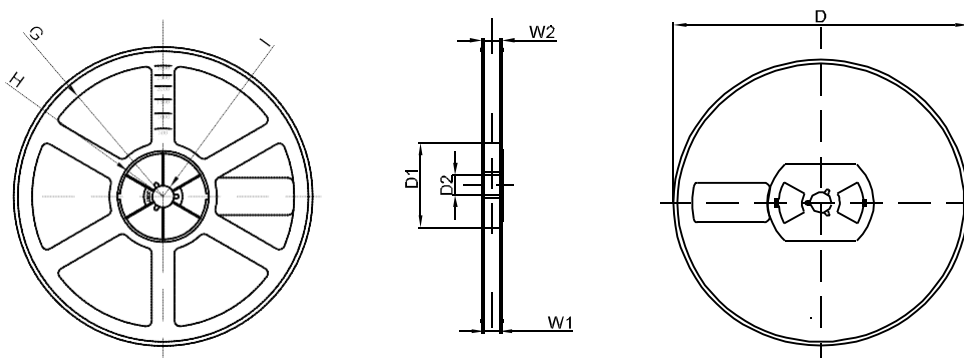
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	5.00	5.45	0.197	0.215
B	3.20	4.00	0.126	0.157
C	4.30	4.70	0.169	0.185
D	1.80	2.20	0.071	0.087
E	2.20	2.50	0.087	0.098
G	1.90	2.30	0.075	0.090
H	0.95	1.25	0.037	0.049
I	0.05	0.15	0.002	0.006
K	1.70	2.10	0.067	0.083
L	0.90	1.60	0.035	0.063
N	0.10	0.30	0.004	0.012

**SMB 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**
**SMB Tape and Reel**
**SMB Embossed Carrier Tape**


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMB	4.10	5.50	2.58	Ø1.50	1.75	5.50	4.00	8.00	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

**SMB Tape Leader and Trailer**

**SMB Reel**


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
13" DIA	Ø330	75.0	13.00	R165	R37.50	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1