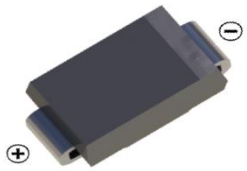
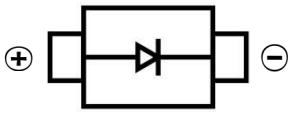
SCHOTTKY BARRIER DIODE

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)
- Marking: SS22 SS24 SS26 SS28 SS210 SS212 SS215 SS220

MAXIMUM RATINGS AND CHARACTERISTICS(T_A = 25°C unless otherwise noted)

Parameter	Symbol	SS22A	SS24A	SS26A	SS28A	SS210A	SS212A	SS215A	SS220A	Unit
Repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
DC Reverse Voltage	V_R	20	40	60	80	100	120	150	200	V
RMS Reverse Voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I_{FSM}	50				40				A
Mean rectifying current	I_F	2.0								A
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	85								°C/W
Junction Temperature	T_J	125								°C
Storage Temperature	T_{STG}	-55 ~+150								°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	SS22A	SS24A	SS26A	SS28A	SS210A	SS212A	SS215A	SS220A	Unit	Conditions
Forward voltage	V_F	0.55		0.70		0.85		0.95		V	I_F=2A
Reverse current T=25°C	I_R	0.5			0.3					mA	$V=V_R$
Reverse current T=100°C	I_R	10			5					mA	
Junction capacitance	C_J	220		80						pF	V_R=4V,f=1MHz

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Typical Characteristics

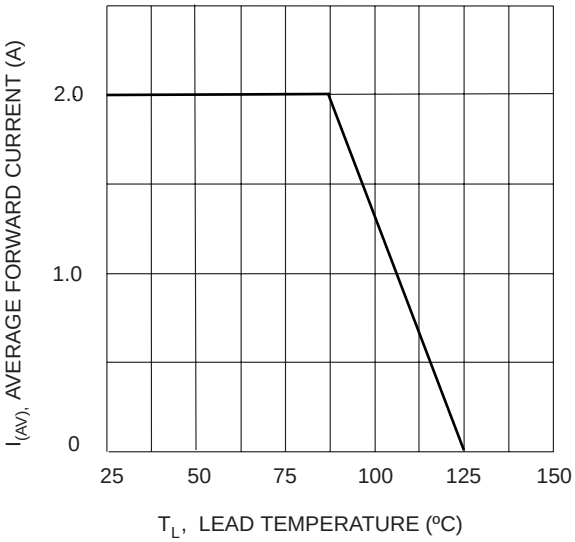


Fig. 1 Forward Current Derating Curve

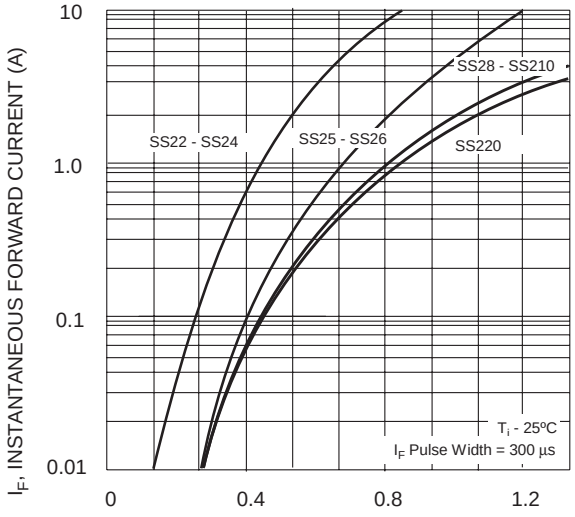


Fig. 2 Typ. Forward Characteristics

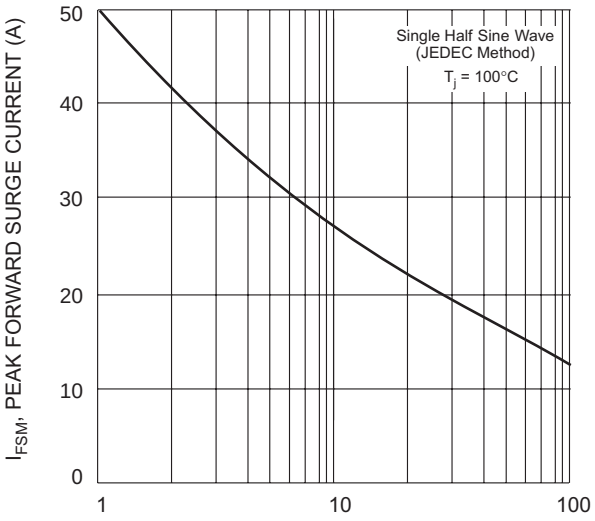


Fig. 3 Max Non Repetitive Peak Fwd Surge Current

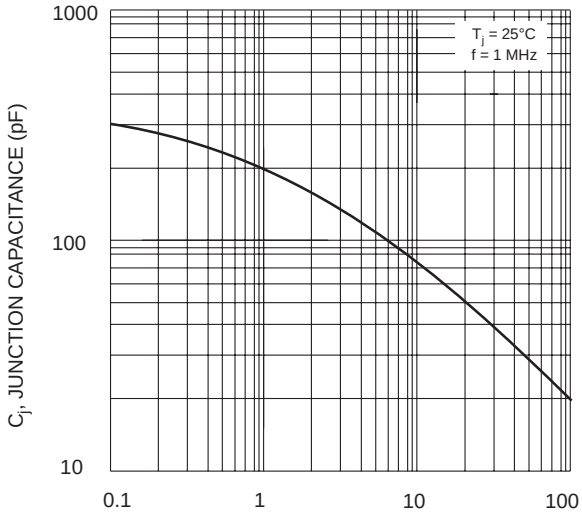


Fig. 4 Typical Junction Capacitance

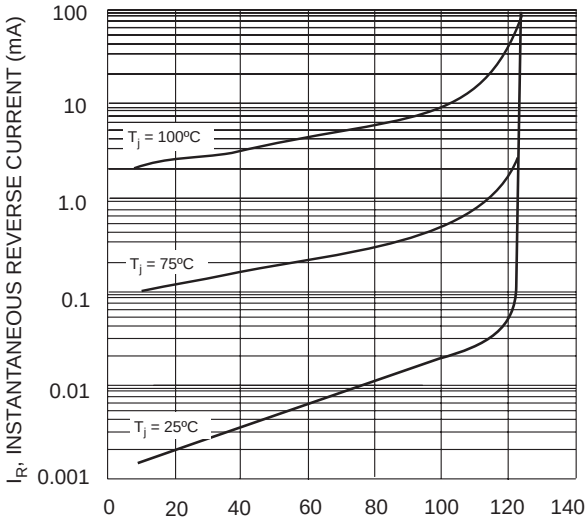
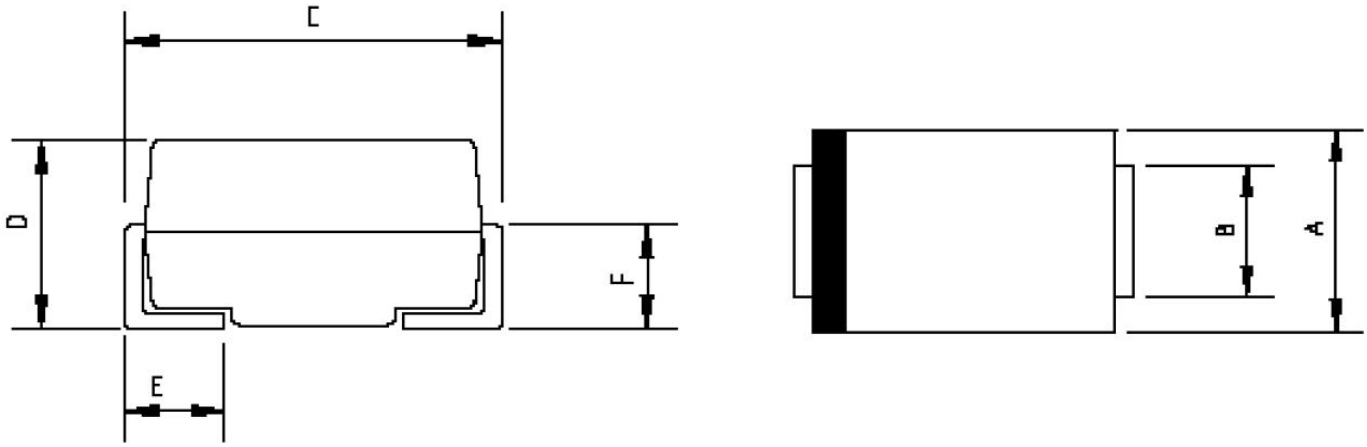


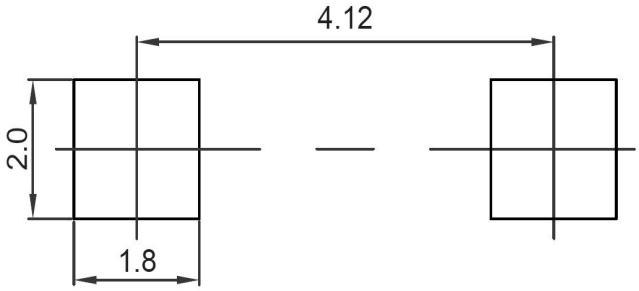
Fig. 5 Typical Reverse Characteristics

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:

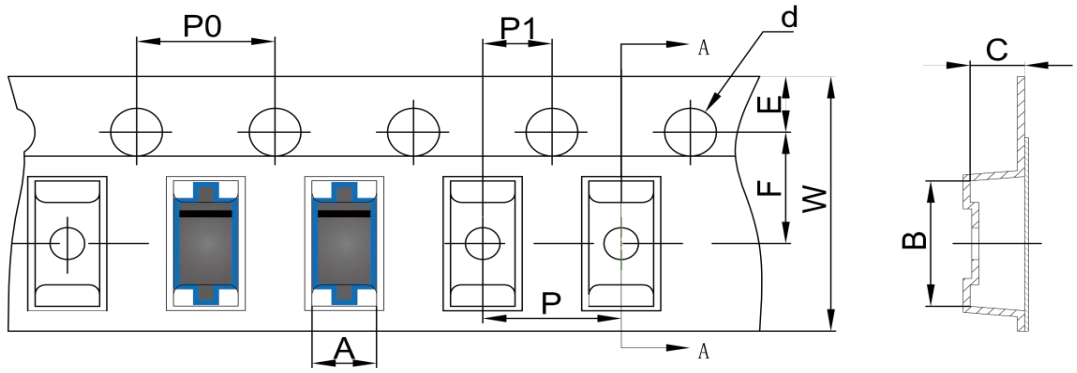
1.Controlling dimension: in millimeters

2.General tolerance: ±0.05mm

3.The pad layout is for reference purposes only

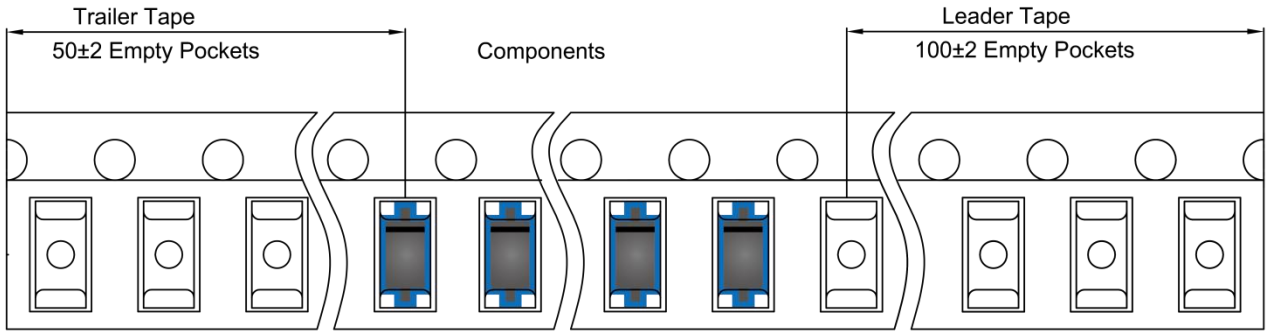
SMA Tape and Reel

SMA Embossed Carrier Tape

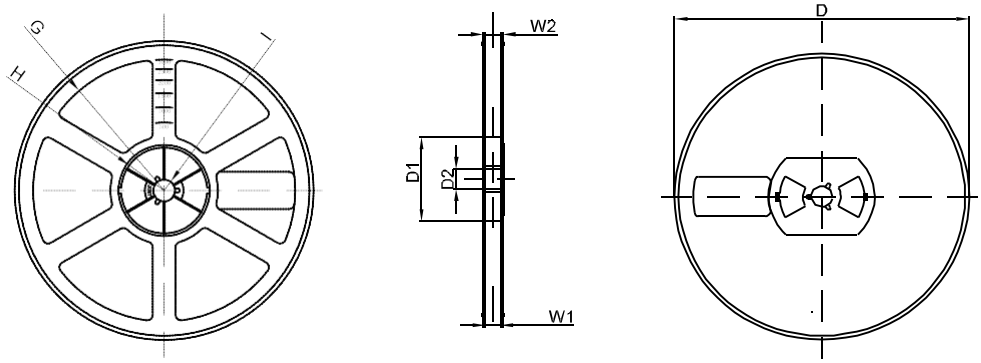


	DIMENSIONS ARE IN MILLIMETER									
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMA	2.89	5.35	2.68	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SMA Tape Leader and Trailer

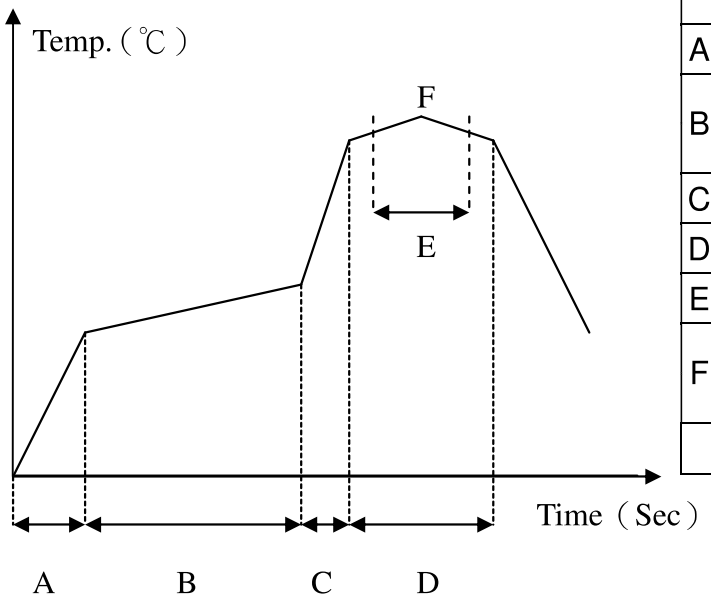


SMA Reel



	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

1.Re-Flow Heat-resisting Temperature Condition



Profile Condition			Unit
A	Ramp Up	1~3	℃/Sec
B	Heat Time	60~180	Sec
	Heat Temp.	150~200	℃
C	Ramp Up	1~3	℃/Sec
D	Temp. Over 217℃	60~150	Sec
E	Temp. Over 245℃	20~40	Sec
F	Peak Temperature	260 ±5℃	℃
	Peak Hold Time	10	Sec
No of Time		3	Times

2.Dip Soldering

Flow soldering with bath

Flow soldering condition : 260 +5/-5℃ 10±0.5 Sec.

Times: 3 times

3.Hand Soldering

With soldering iron：380℃ 3±0.5 Sec

Times: 2 times