



## SS22 THRU SS2200

VOLTAGE RANGE

20 to 200 Volts

CURRENT

2.0 Ampere



## Features

- Low profile surface mount package
- Built in strain relief
- High switching speed
- Low voltage drop, high efficiency
- For use in low voltage high frequency inverters, Free willing ,and polarity protection applications
- Guardring for over voltage protection



DO-214AC (SMA)

## Mechanical Data

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead :Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounce, 0.064 gram

## Maximum Ratings and Electrical Characteristics

- Ratings at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%.

TYPE NUMBER	SYMBOL	SS 22	SS 24	SS 25	SS 26	SS 28	SS 2100	SS 2150	SS 2200	UNIT	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	28	35	42	56	70	105	150	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at $T_L$ see figure 1 $T_L = 100^\circ\text{C}$	$I_{(AV)}$	2.0								Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50								Amps	
Maximum Instantaneous Forward Voltage @ 2.0A <sup>(Note1)</sup>	$V_F$	0.55	0.70	0.85	0.95					Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_A = 25^\circ\text{C}$	0.1						0.01		mA	
	$T_A = 125^\circ\text{C}$	20.0			10.0		2.0				
Typical Thermal Resistance <sup>(Note 2)</sup>	$R_{\theta JA}$	55								$^\circ\text{C}/\text{W}$	
	$R_{\theta JL}$	25									
Diode junction capacitance <sup>(Note 3)</sup>	$C_j$	30								pF	
Operating Junction Temperature	$T_J$	-55 to +150				-65 to +150				$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150									$^\circ\text{C}$

Notes:

1. Pulse test:300 $\mu\text{s}$  pulse width,1% duty cycle.
2. Unit mounted on P.C.B. with 0.20"×0.20"(5.00mm×5.00mm) copper pads.
3. f=1MHz and applied 4V DC reverse voltage.

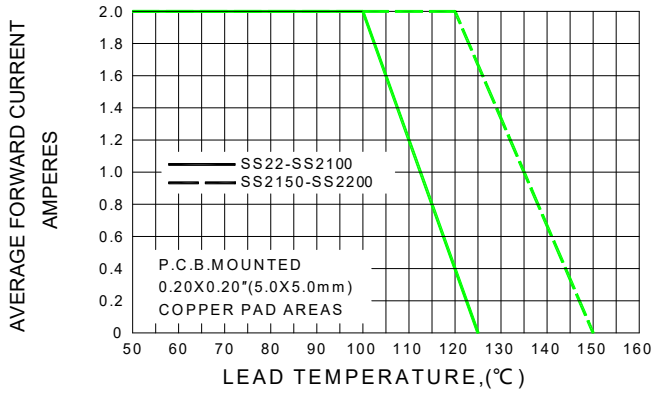


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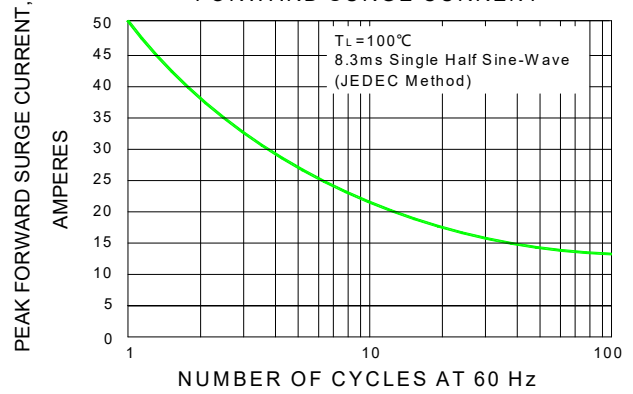
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Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

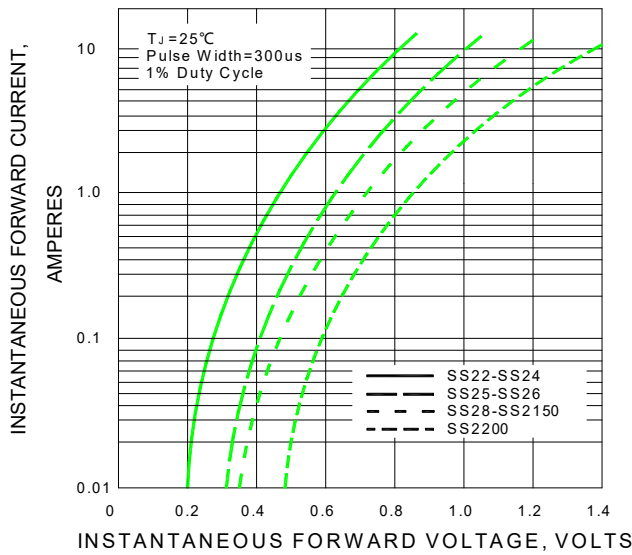
F1G.1-FORWARD CURRENT DERATING CURVE



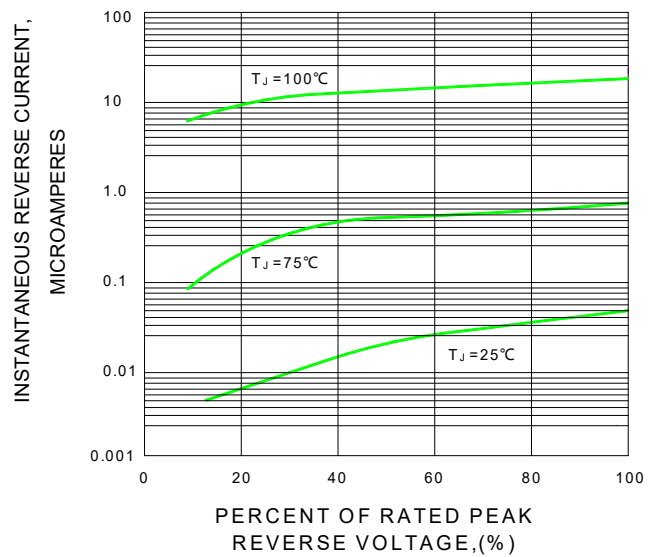
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



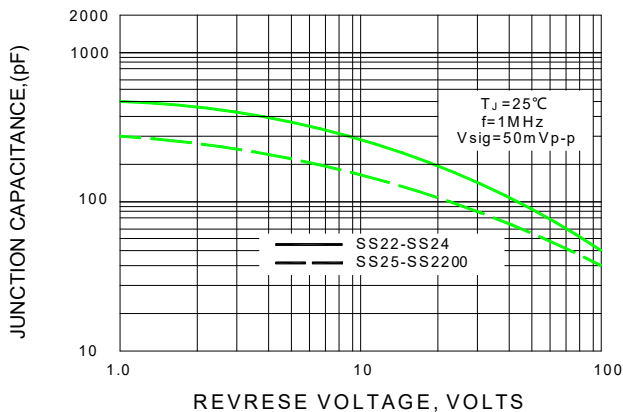
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



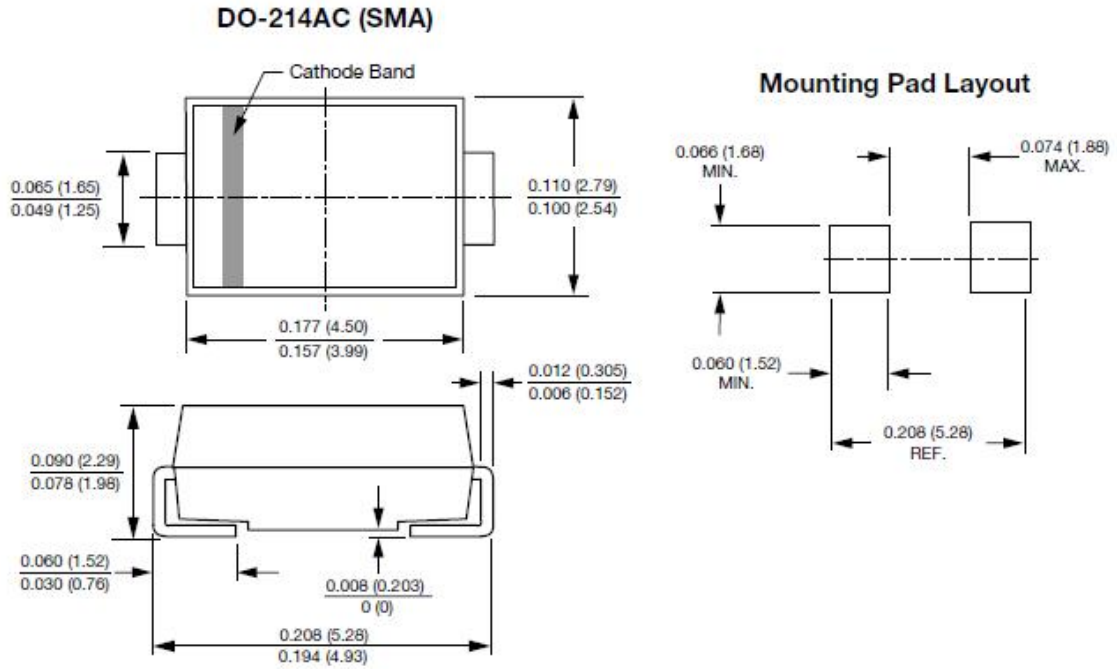


# SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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Package Outline Dimensions in inches (millimeters)



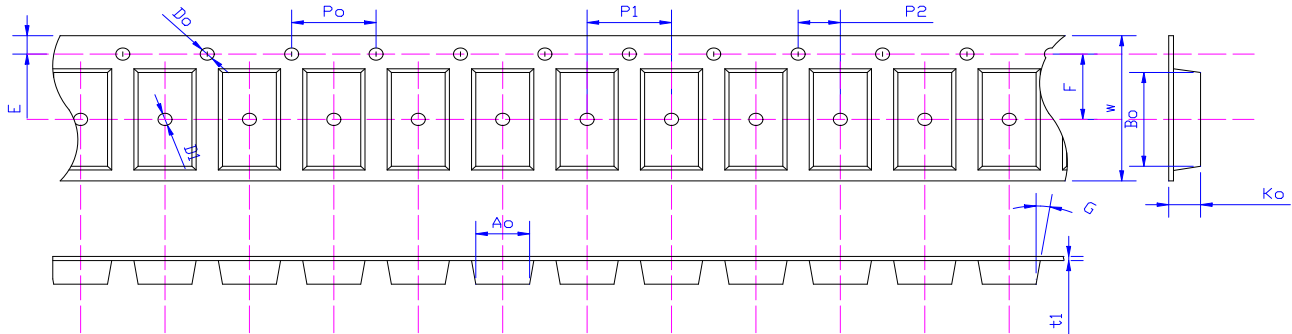


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

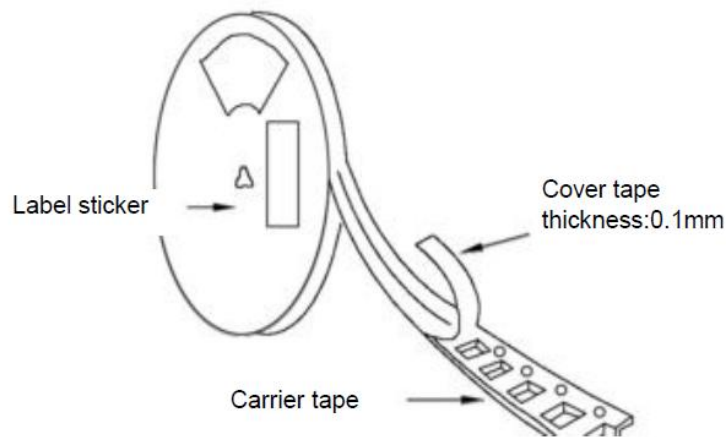
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Package Reel Information



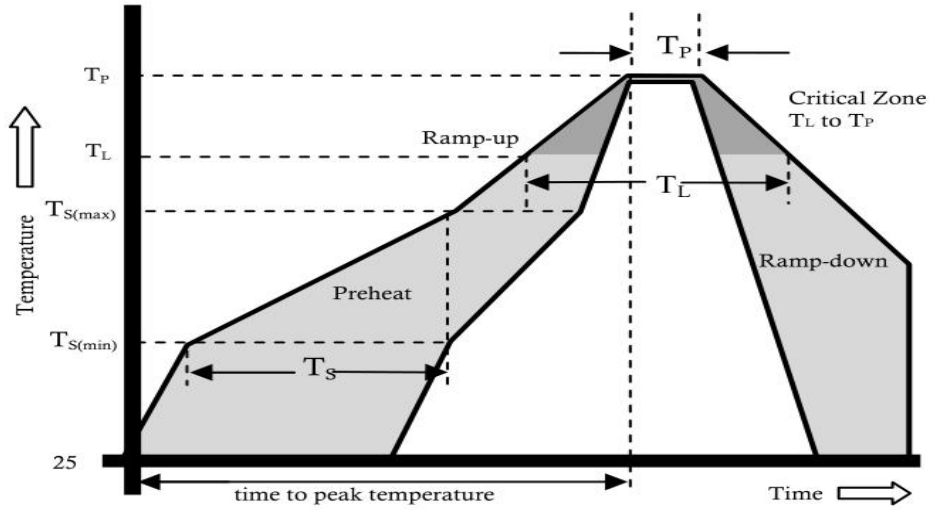
Specifications	Ao	Bo	Ko	Po	W	t1
SMA	2.55±0.10	5.10±0.10	2.36±0.10	4.00±0.1	12.0±0.05	0.23±0.02



DEVICE TYPE	Tape Width	13"Reel			07"Reel			
		Q'TY/REEL(pcs)	BOX/CARTOON	Q'TY/CARTON(pcs)	Q'TY/REEL(pcs)	REEL/BOX	BOX/CARTOON	Q'TY/CARTON(pcs)
SMA	12mm	5000	8	80000	1500	2	16	48000



Reflow Profile



Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time(Min to Max)	60-180 secs.
Average ramp up rate(Liquidus Temp( $T_L$ ) to peak)		3°C/sec. Max.
$T_S$ (max) to $T_L$ - Ramp-up Rate		3°C/sec. Max.
Reflow	Temperature ( $T_L$ )(Liquidus)	+217°C
	Temperature ( $T_P$ )	60-150 secs.
Peak Temp ( $T_P$ )		+(260+0/-5)°C
Time within 5°C of actual Peak Temp ( $T_P$ )		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp ( $T_P$ )		8 min. Max.
Do not exceed		+260°C



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## Disclaimer

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