SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SS22 THRU SS220

VOLTAGE RANGE 20 to 200 Volts
CURRENT 2.0 Ampere

RoHS COMPLIANT

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

TYPE NUMBER		SYMBOLS	SS22	SS24	SS25	SS26	SS28	SS210	SS215	SS220	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	140	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℃		$I_{(AV)}$	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 (Note1)		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℃	I_R	0.1						0.01		mA
	T_A = 125℃		20.0				10.0		2.0		
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	55								℃/W
		$R_{\theta JL}$	25								
Diode junction capacitance (Note 3)		C_J	30								pF
Operating Junction Temperature		T_J	-55 to +150				-65 to +150				℃
Storage Temperature Range		T_{STG}	-55 to +150								℃

Notes:

1. Pulse test:300μs 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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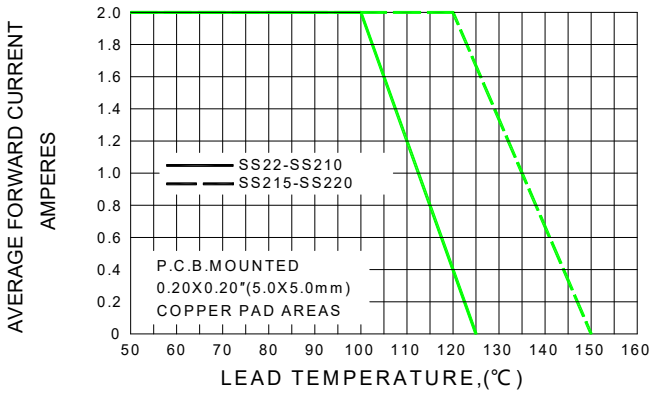
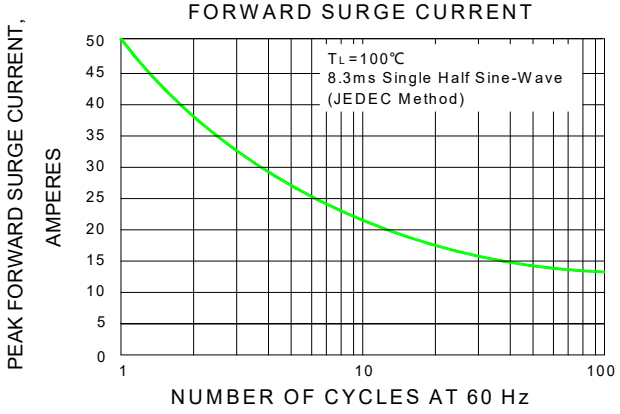
Ratings and Characteristic Curves (T_A=25℃ unless otherwise noted)

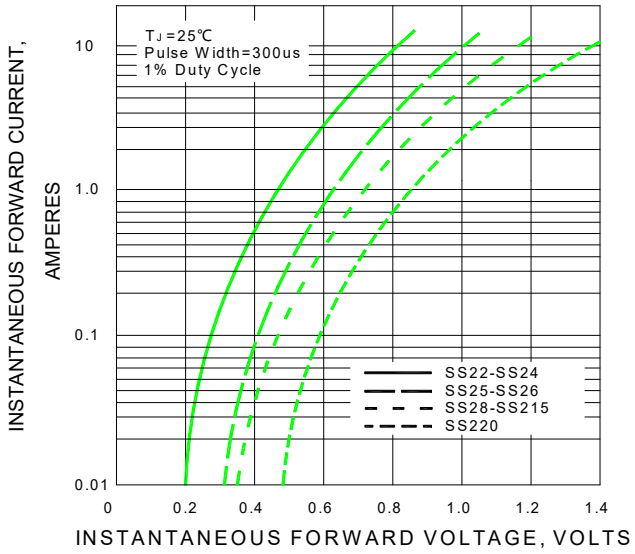
F1G.1-FORWARD CURRENT DERATING CURVE



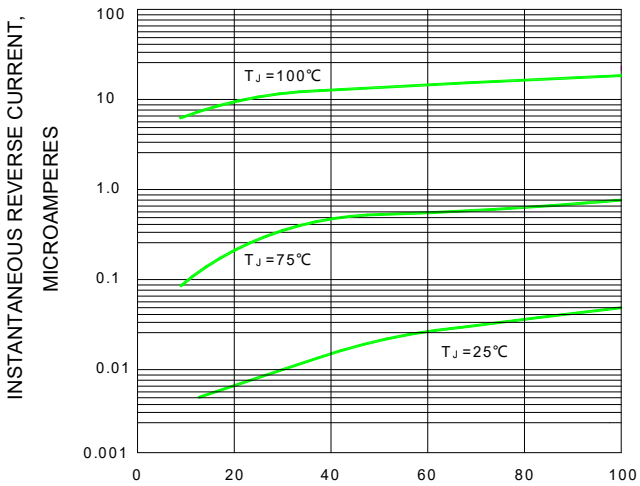
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



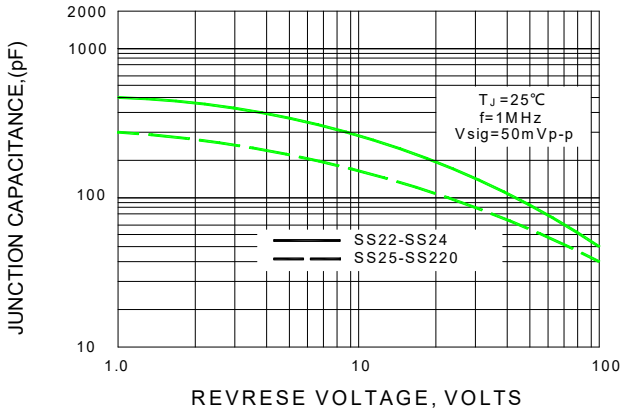
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



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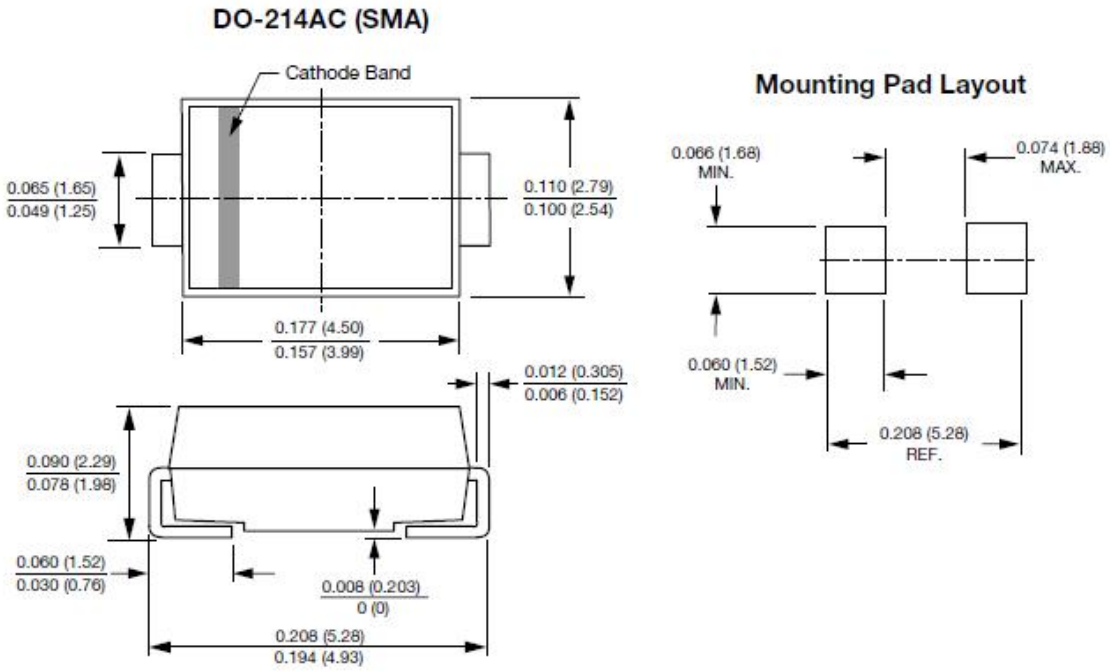
Package Outline Dimensions in inches (millimeters)



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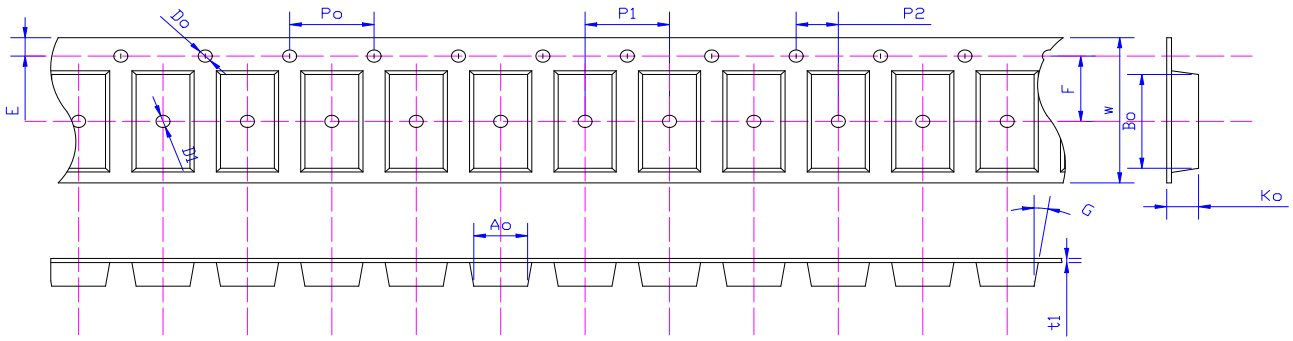
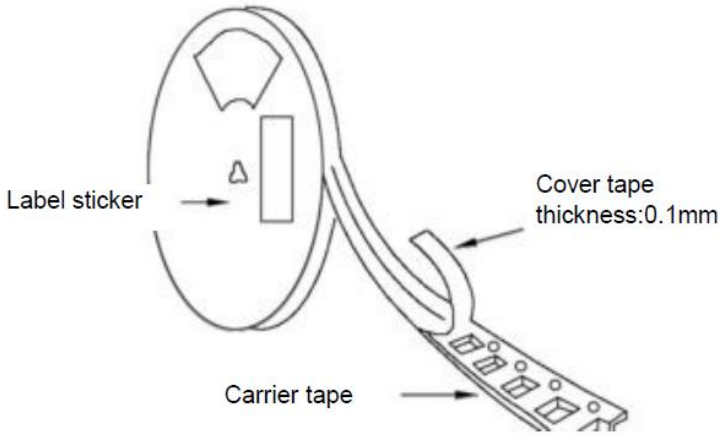
Package Reel Information



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

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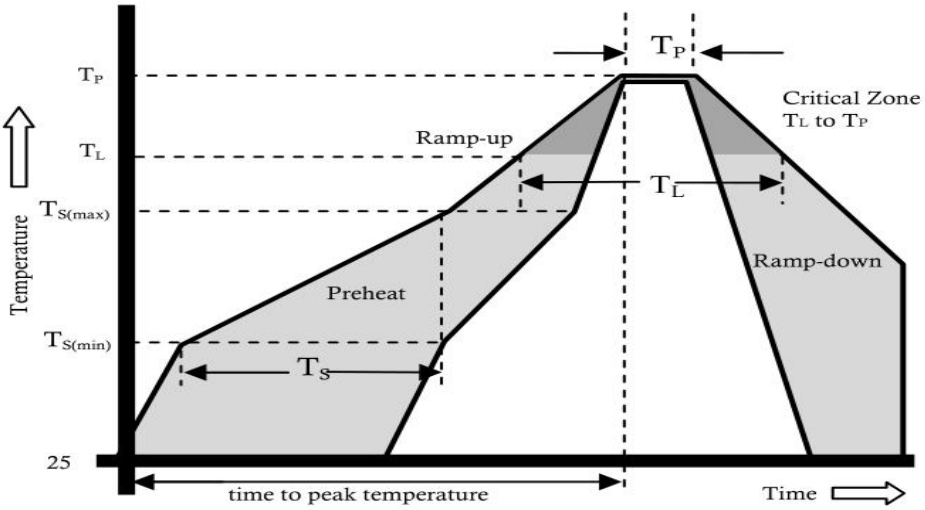
Reflow Profile



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_L)	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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