



SK22 THRU SK225

2.0 AMP Surface Mount Schottky Barrier Rectifiers

1.Features

- Schottky Barrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Plastic Case Material has UL Flammability Classification Rating 94V-0

SMB(DO-214AA)



2.Mechanical Data

- Case:Molded Plastic,SMB(DO-214AA).
- Mounting Position: Any
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026
- Making: Type Number

Cathode  Anode

3.Maximum Ratings and Electrical Characteristics

Rating 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	Symbol	SK 22	SK 23	SK 24	SK 245	SK 25	SK 26	SK 28	SK 210	SK 215	SK 220	SK 225	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	45	50	60	80	100	150	200	250	V
Maximum DC Blocking Voltage	V _{DC}												
Maximum RMS Voltage	V _{RMS}	14	21	28	31	35	42	56	70	105	140	175	
Average Rectified Output Current @T _L =100 °C	I _{F(AV)}	2											A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	50											A
I ² t Rating for fusing (t <8.3ms)	I ² t	10.38											A ² s
Forward Voltage per element @I _F =2A	V _{FM}	0.55				0.7		0.85		0.92		0.95	V
Peak Reverse Current @T _A =25 °C	I _R	0.1						0.05					mA
At Rated DC Blocking Voltage @T _A =100 °C		10						5					
Typical Junction Capacitance (Note1)	C _J	80						40					pF
Typical Thermal Resistance	R _{θJA}	95											°C/W
Operating Temperature Range	T _J	-55 to+150											°C
Storage Temperature Range	T _{STG}	-55 to+150											°C

Note:

1.Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

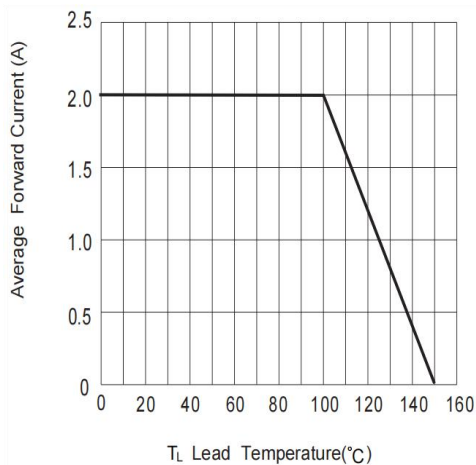


Fig. 2 Typical Forward Characteristics

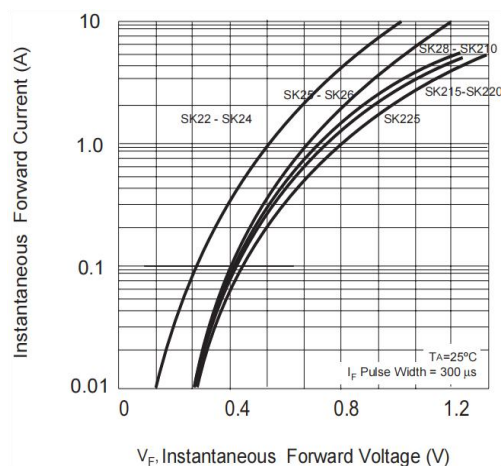


Fig.3 Forward Surge Current Capability

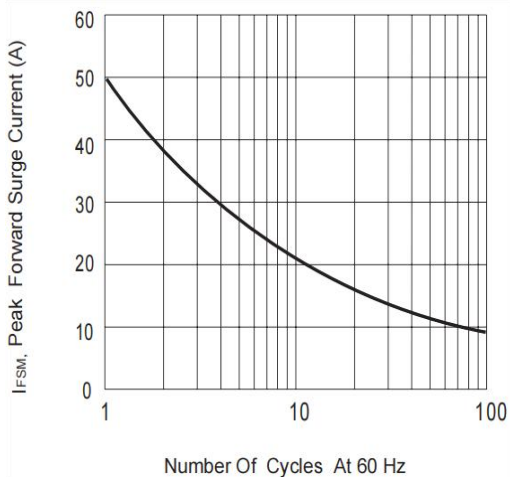


Fig.4 Typical Reverse Characteristics

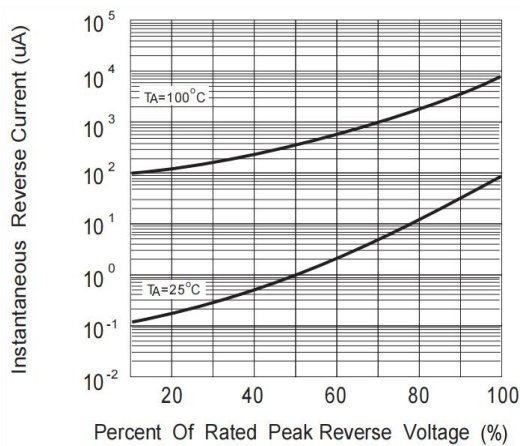
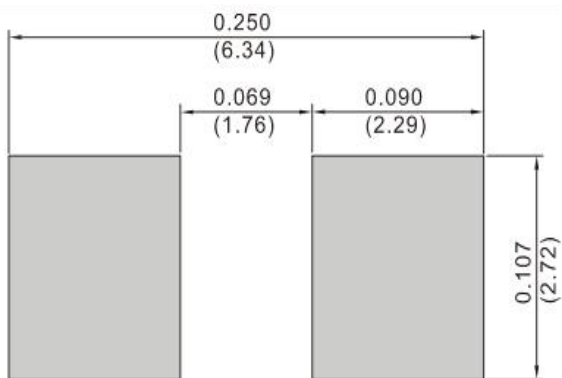
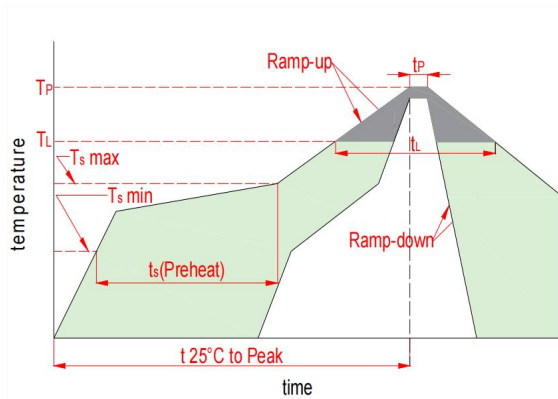


Fig.5 Mounting PAD Layout



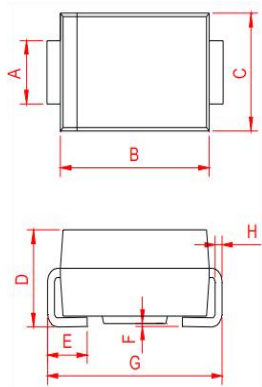


5. Soldering Parameters



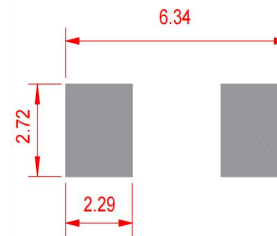
Reflow Condition		Lead-free
Pre Heat	Temp. min($T_s(\min)$)	150°C
	Temp. max($T_s(\min)$)	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)		3°C/s max
$T_s(\max)$ to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp. (T_L)(Liquidus)	217°C
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_p)		260 ^{+0/-5} °C
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Tempe. (T_p)		8 minutes max
Do not exceed		260°C

6. Dimensions

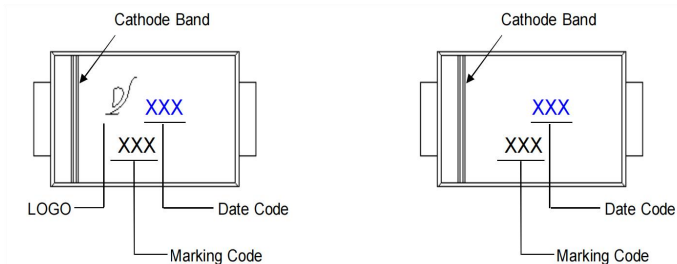


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.071	0.087	1.80	2.20
B	0.163	0.187	4.15	4.75
C	0.130	0.154	3.30	3.90
D	0.084	0.102	2.13	2.60
E	0.033	0.057	0.85	1.45
F	0.000	0.008	0.00	0.20
G	0.197	0.217	5.00	5.50
H	0.004	0.012	0.10	0.30

Mounting PAD Layout



7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	Inch	
SMB(DO-214AA)	12	330	13	3000



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