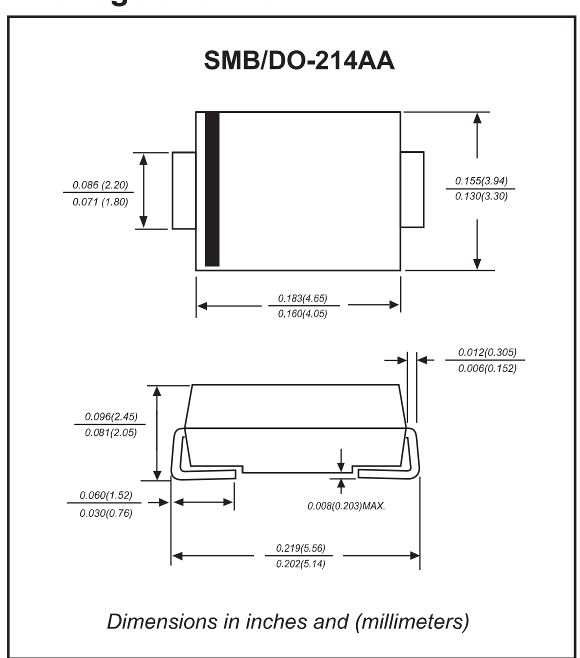
SS22B THRU SS220B

2.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Compliant to RoHS Directive 2011/65/EU

Package outline



Dimensions in inches and (millimeters)

Mechanical data

- **Case**: JEDEC DO-214AA molded plastic body
- **Terminals**: Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity**: Color band denotes cathode end
- **Mounting Position**: Any

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I_O			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			50	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			0.5	mA
	V_R = V_{RRM} T_A = 100°C				10	
Thermal resistance	Junction to ambient NOTE 1	$R_{\theta JA}$		60		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		220		pF
Storage temperature		T_{STG}	-55		+150	°C

Note: 1.P.C.B. mounted with 2.0x2.0″(5.0x5.0cm) copper pad areas

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
SS22B	20	14	20	0.55	-55 to +125
SS23B	30	21	30		
SS24B	40	28	40		
SS25B	50	35	50	0.70	-55 to +150
SS26B	60	42	60		
SS28B	80	56	80	0.85	
SS210B	100	70	100		
SS215B	150	105	150	0.95	
SS220B	200	140	200		

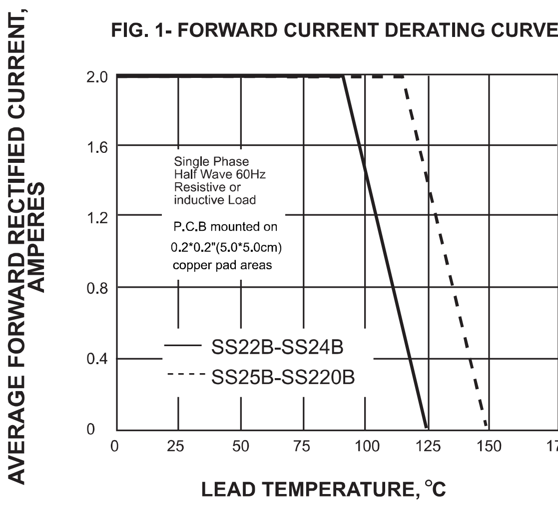
*1 Repetitive peak reverse voltage

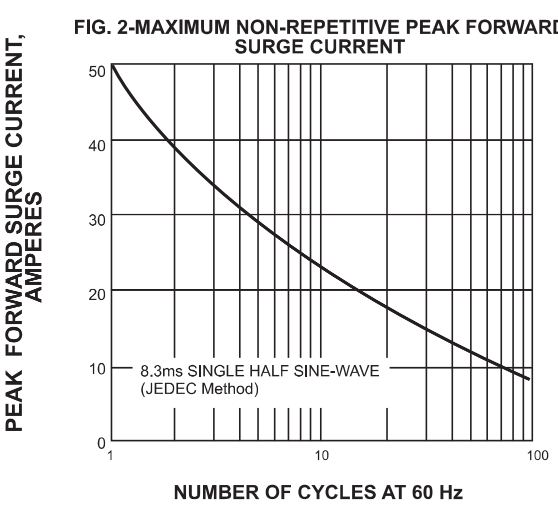
*2 RMS voltage

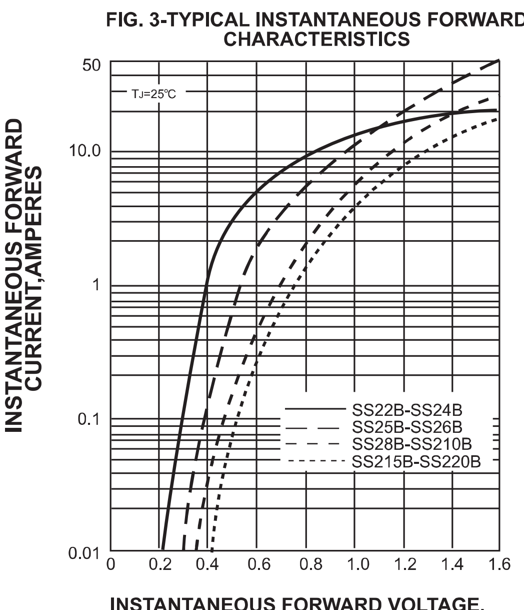
*3 Continuous reverse voltage

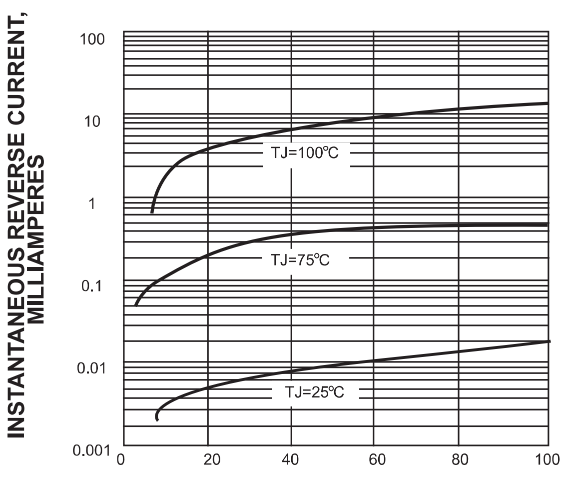
*4 Maximum forward voltage@I_F=2.0A

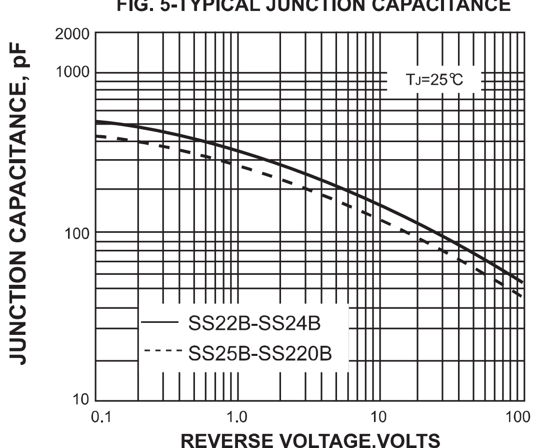
Rating and characteristic curves

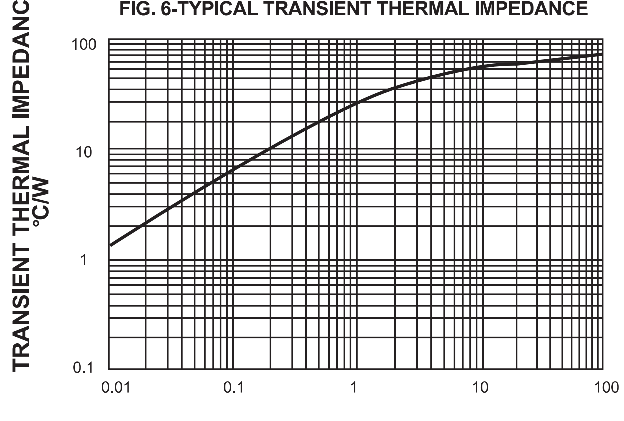












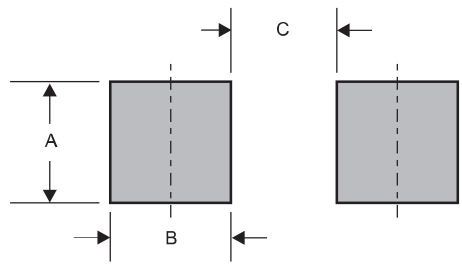
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode	1 2	1 2

Marking

Type number	Marking code	Example
SS22B	SS22	For Halogen Device
SS23B	SS23	
SS24B	SS24	SS24
SS25B	SS25	
SS26B	SS26	
SS28B	SS28	
SS210B	SS210	
SS215B	SS215	
SS220B	SS220	

Suggested solder pad layout



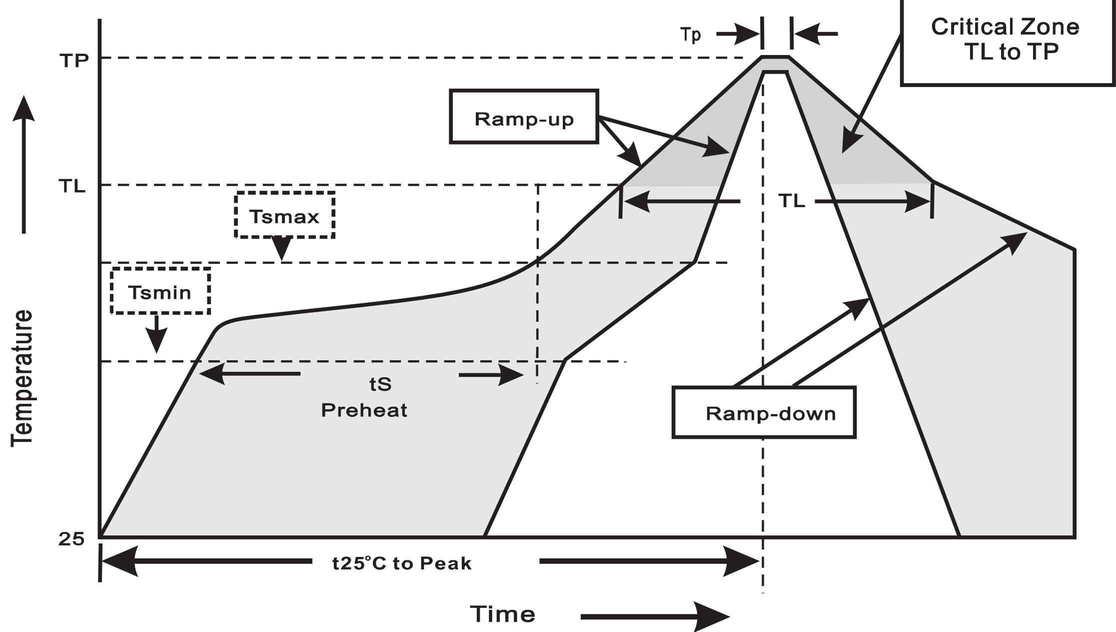
Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMB	0.078 (2.00)	0.059 (1.50)	0.110 (2.80)

Suggested thermal profiles for soldering processes

1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%

2.Reflow soldering of surface-mount devices



3.Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(T_L to T_P)	<3°C/sec
Preheat -Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(min to max)(t_s)	150°C 200°C 60~120sec
Tsmax to T_L -Ramp-upRate	<3°C/sec
Time maintained above: -Temperature(T_L) -Time(t_L)	217°C 60~260sec
Peak Temperature(T_P)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(t_P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes