

SS22-B THRU SS220-B

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

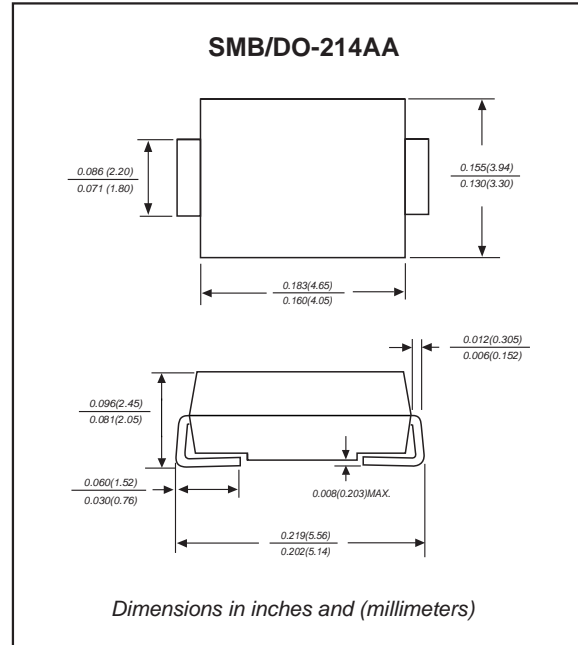
Features

- ▶ 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: 250°C/10 seconds at terminals
- ▶ Compliant to RoHS Directive 2011/65/EU
- ▶ Suffix "-H" indicates Halogen-free part, ex. SS24-B-H

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
- ▶ **Weight:** 0.003 ounce, 0.093 grams

Package outline



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 _{θJA}		75		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C _J		220		pF
Storage temperature		T _{STG}	-65		+150	°C

Note: 1.P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) 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)
SS22-B	20	14	20	0.55	-55 to +125
SS23-B	30	21	30		
SS24-B	40	28	40		
SS25-B	50	35	50	0.70	-55 to +150
SS26-B	60	42	60		
SS28-B	80	56	80	0.85	
SS210-B	100	70	100		
SS215-B	150	105	150	0.92	
SS220-B	200	140	200		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

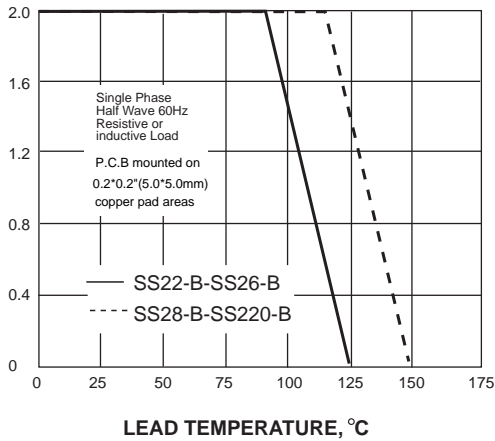
*4 Maximum forward voltage@I_F=2.0A

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Rating and characteristic curves

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

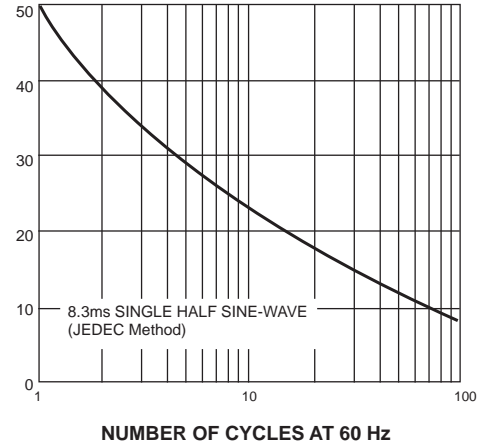


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

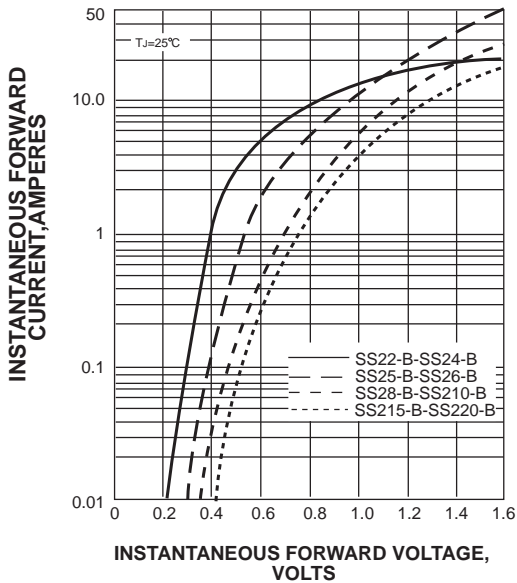


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

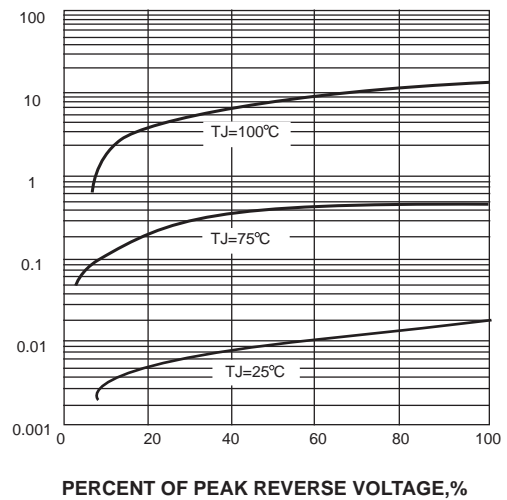
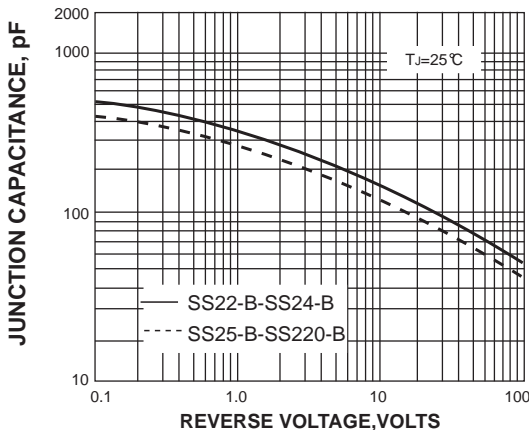
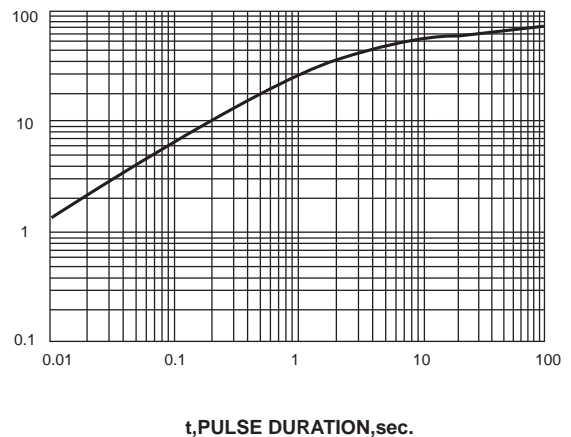


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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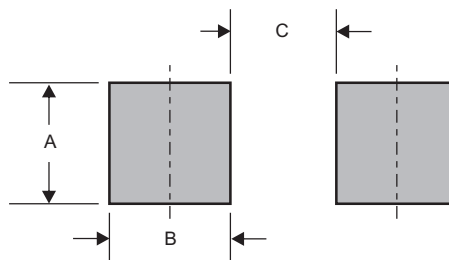
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example	
SS22-B	SS22	For Halogen Device	For Halogen-free Device
SS23-B	SS23		
SS24-B	SS24		
SS25-B	SS25		
SS26-B	SS26		
SS28-B	SS28		
SS210-B	SS210		
SS215-B	SS215		
SS220-B	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)