

SS52-B THRU SS520-B

5.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V

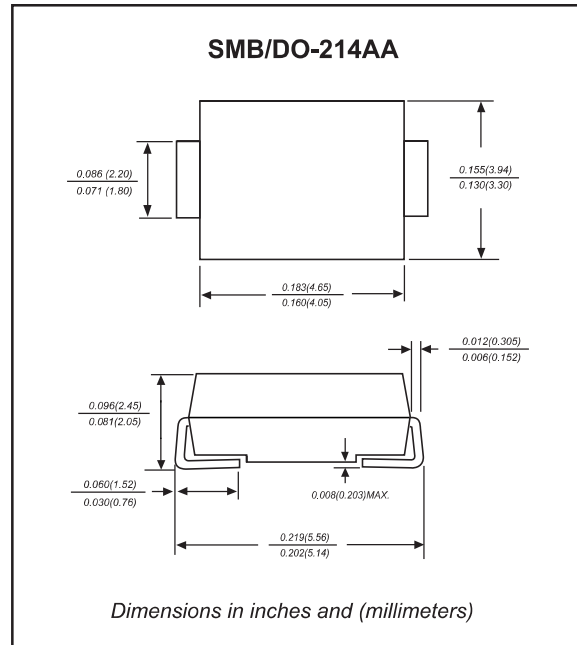
Features

- ▶ 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. SS54-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			5.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I _{FSM}			120	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}		50		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C _J		200		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 _{RM} *1 (V)	V _{RMS} *2 (V)	V _R *3 (V)	V _F *4 (V)	Operating temperature T _J , (°C)
SS52-B	20	14	20	0.55	-55 to +125
SS53-B	30	21	30		
SS54-B	40	28	40		
SS55-B	50	35	50	0.70	-55 to +150
SS56-B	60	42	60		
SS58-B	80	56	80	0.85	
SS510-B	100	70	100		
SS515-B	150	105	150	0.92	
SS520-B	200	140	200		

*1 Repetitive peak reverse voltage

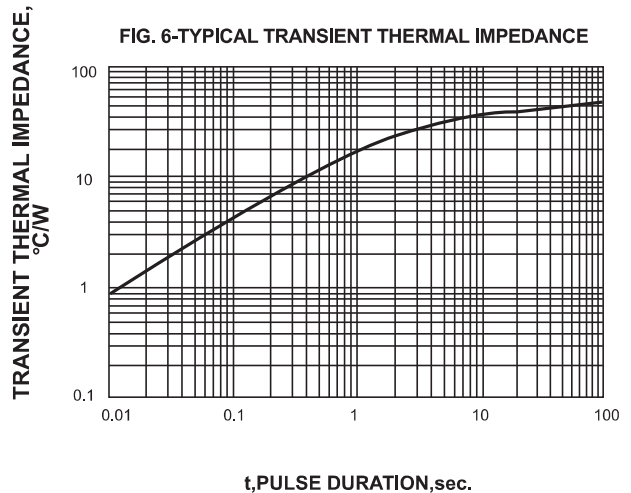
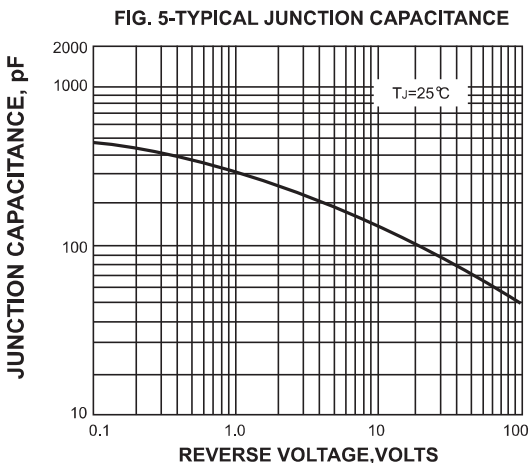
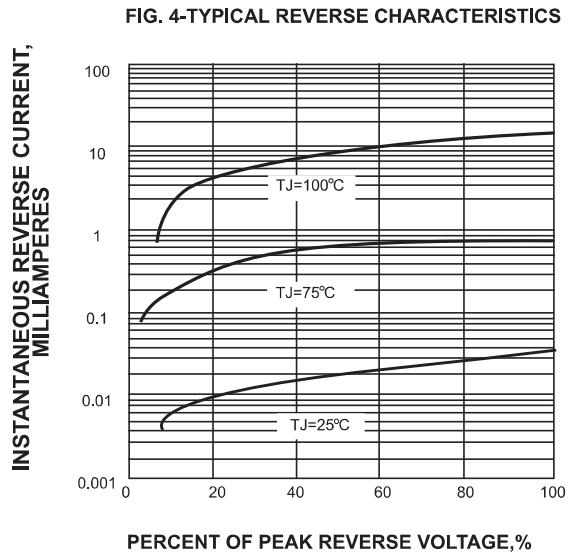
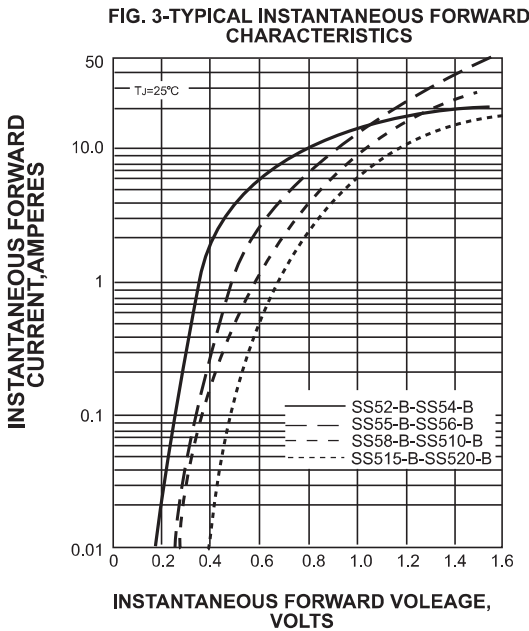
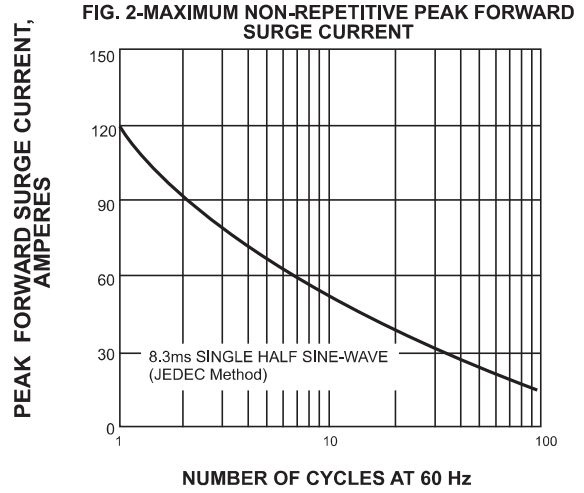
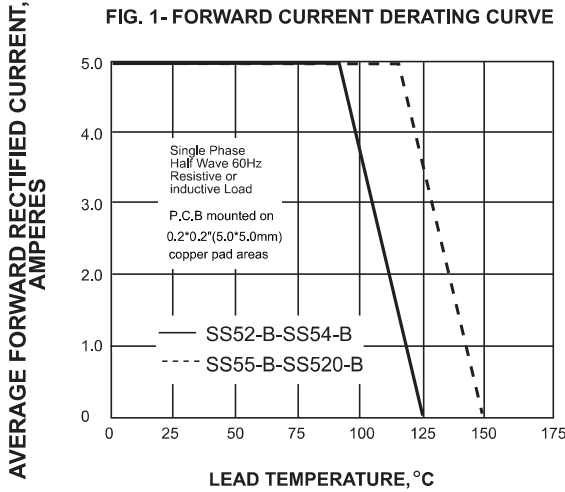
*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=5.0A



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Rating and characteristic curves

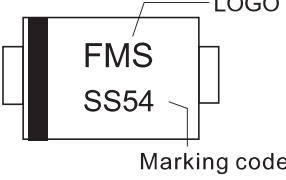
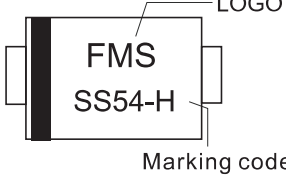


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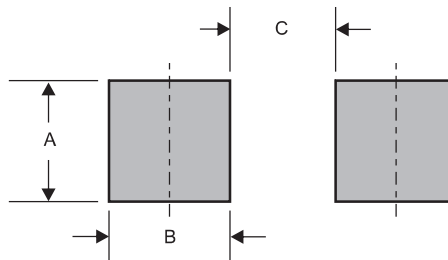
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example	
SS52-B	SS52	For Halogen Device	For Halogen-free Device
SS53-B	SS53		
SS54-B	SS54		
SS55-B	SS55		
SS56-B	SS56		
SS58-B	SS58		
SS510-B	SS510		
SS515-B	SS515		
SS520-B	SS520		

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)