

S1A-B THRU S1M-B

1.0A Surface Mount General Purpose Rectifiers - 50V-1000V

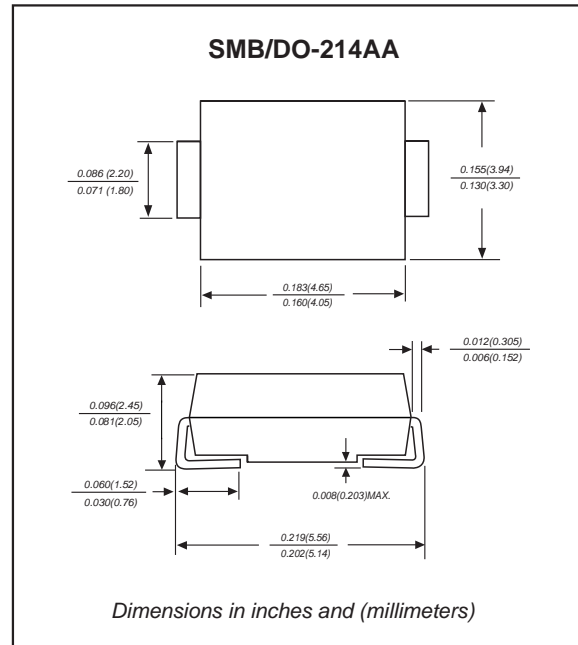
Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Glass passivated chip junction
- ◆ Compliant to RoHS Directive 2011/65/EU
- ◆ Suffix "-H" indicates Halogen-free part, ex. S1M-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			1.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC method)	I _{FSM}			30	A
Reverse current	V _R = V _{RRM} T _A = 25°C	I _R			5.0	μA
	V _R = V _{RRM} T _A = 100°C				50	
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		15		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)
S1A-B	50	35	50	1.10	-55 to +150
S1B-B	100	70	100		
S1D-B	200	140	200		
S1G-B	400	280	400		
S1J-B	600	420	600		
S1K-B	800	560	800		
S1M-B	1000	700	1000		

*1 Repetitive peak reverse voltage

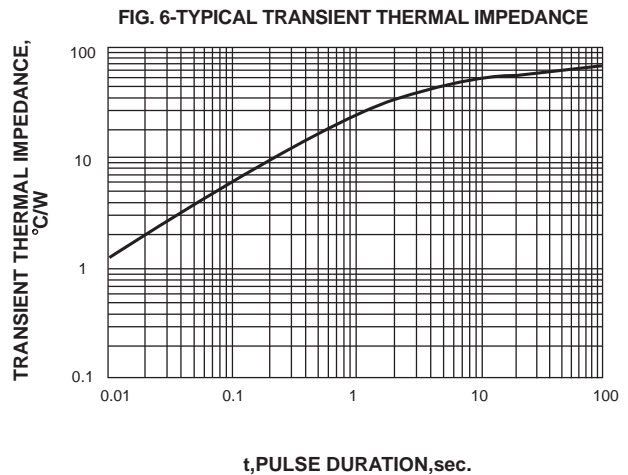
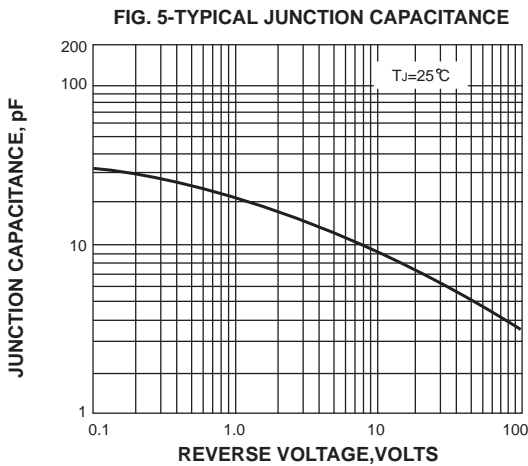
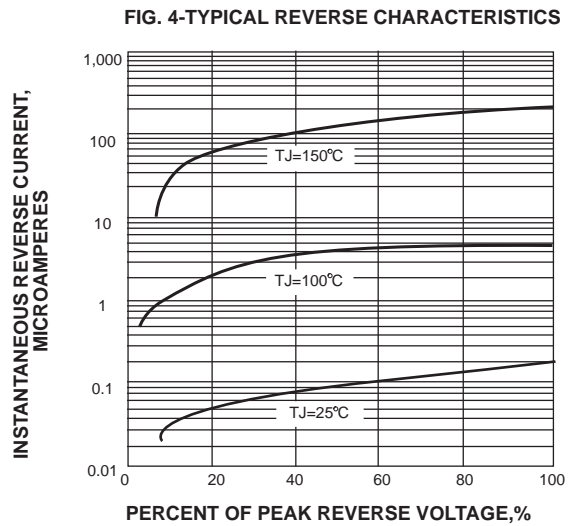
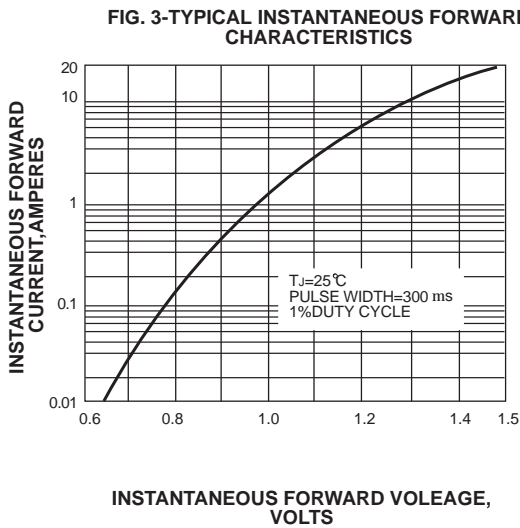
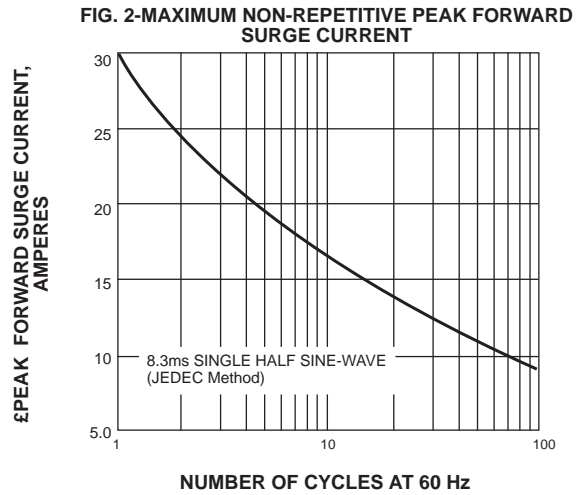
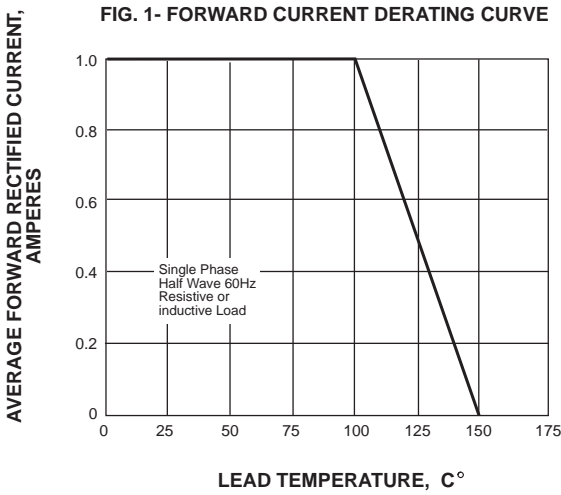
*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=1.0A

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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	
S1A-B	S1A	For Halogen Device	For Halogen-free Device
S1B-B	S1B		
S1D-B	S1D		
S1G-B	S1G		
S1J-B	S1J		
S1K-B	S1K		
S1M-B	S1M		

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)