

2A, 20V - 150V Surface Mount Schottky Barrier Rectifiers

FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- Guardring for overvoltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



DO-214AA (SMB)

MECHANICAL DATA

Case: DO-214AA (SMB)

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020

Part No. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 0.093 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)										
PARAMETER	SYMBOL	SS 22	SS 23	SS 24	SS 25	SS 26	SS 29	SS 210	SS 215	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	150	V
Maximum average forward rectified current	I _{F(AV)}	2								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	50								A
Maximum instantaneous forward voltage (Note 1) I _F = 2 A @ 25°C I _F = 2 A @ 100°C	V _F	0.5 0.4			0.70 0.65		0.85 0.70		0.95 0.80	V
Maximum reverse current @ rated V _R T _J =25°C T _J =100°C T _J =125°C	I _R	0.4					0.1			mA
		10			5		-			
		-			-		5			
Voltage rate of change (Rated V _R)	dV/dt	10000								V/μs
Typical thermal resistance	R _{θJL}	24								°C/W
	R _{θJA}	70								
Operating junction temperature range	T _J	- 55 to +125			- 55 to +150					°C
Storage temperature range	T _{STG}	- 55 to +150								°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
SS2xx (Note 1)	H	R5	G	SMB	850 / 7" Plastic reel
		R4		SMB	3,000 / 13" Paper reel
		M4		SMB	3,000 / 13" Plastic reel

Note 1: "xx" defines voltage from 20V (SS22) to 150V (SS215)

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SS26HR5G	SS26	H	R5	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

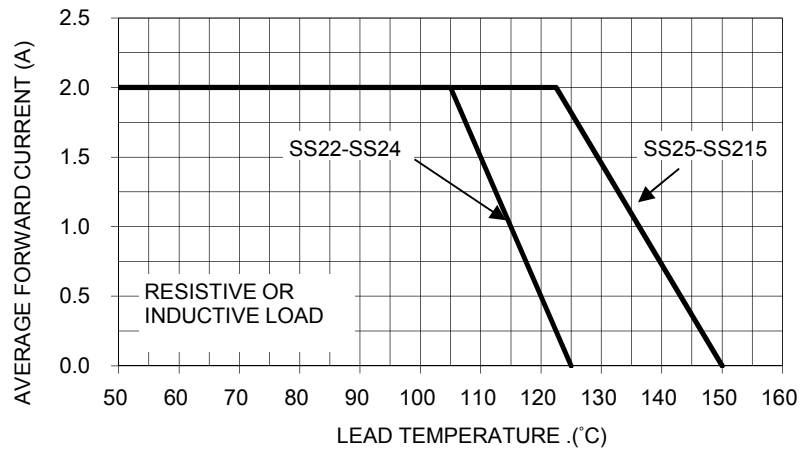


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

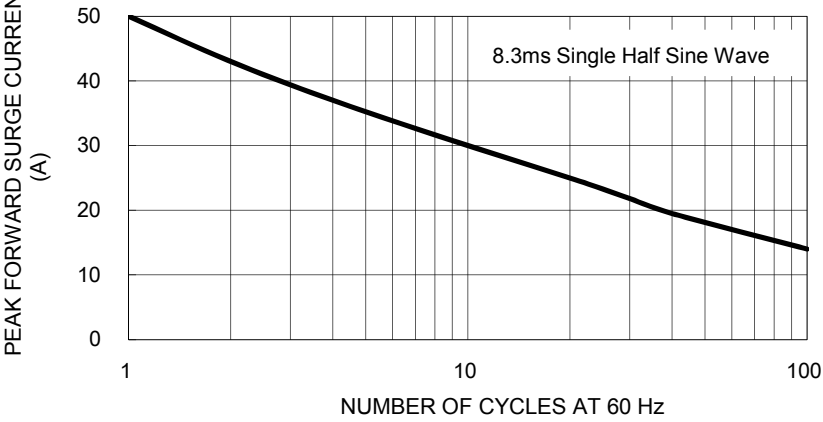


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

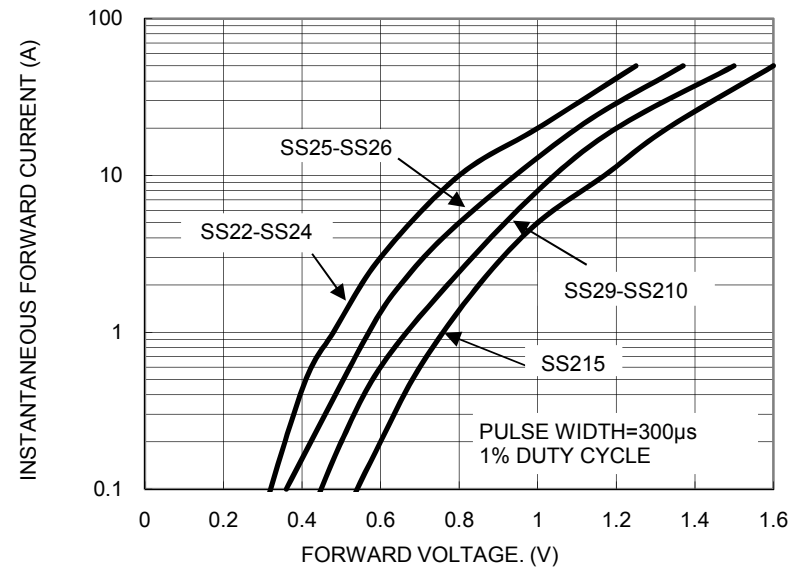


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

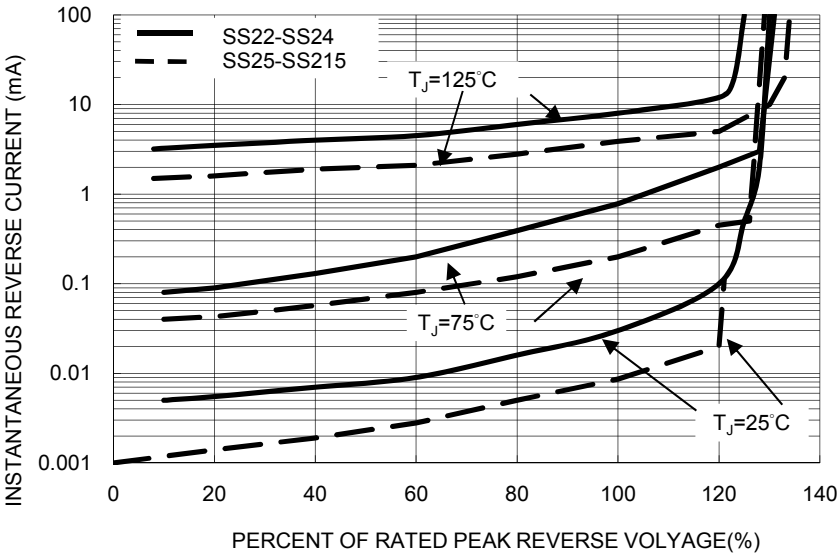
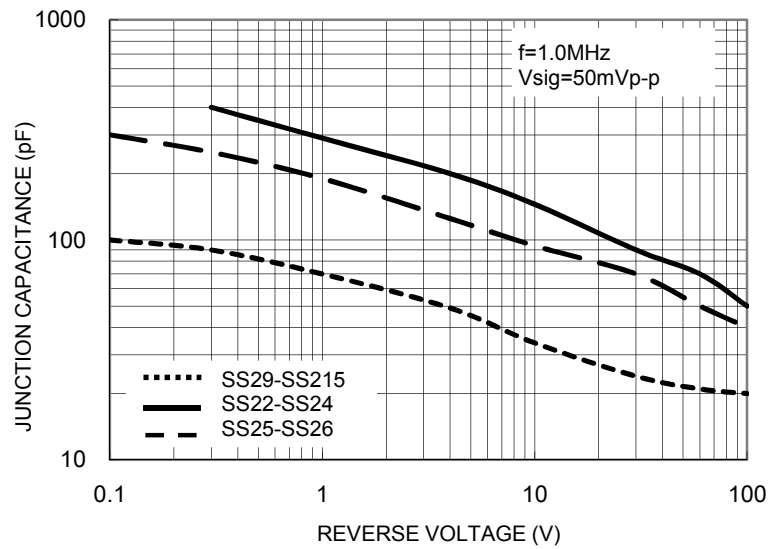
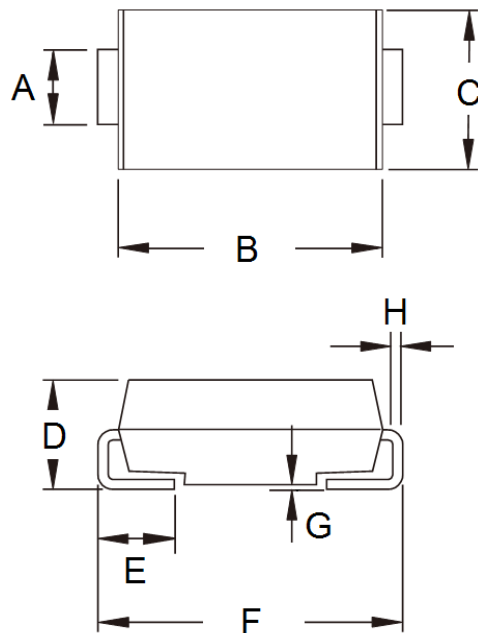


FIG. 5 TYPICAL JUNCTION CAPACITANCE



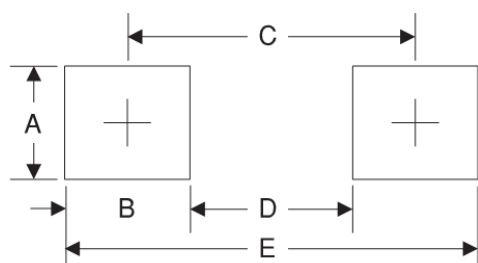
PACKAGE OUTLINE DIMENSIONS

DO-214AA (SMB)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.95	2.10	0.077	0.083
B	4.25	4.75	0.167	0.187
C	3.48	3.73	0.137	0.147
D	1.99	2.61	0.078	0.103
E	0.90	1.41	0.035	0.056
F	5.10	5.30	0.201	0.209
G	0.10	0.20	0.004	0.008
H	0.15	0.31	0.006	0.012

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	2.3	0.091
B	2.5	0.098
C	4.3	0.169
D	1.8	0.071
E	6.8	0.268

MARKING DIAGRAM



P/N = Specific Device Code
G = Green Compound
YW = Date Code
F = Factory Code

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