

## Surface Mount Schottky Barrier Rectifier

### FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- Guardring for overvoltage protection
- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



### MECHANICAL DATA

**Case:** DO-214AA (SMB)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

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

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

**Polarity:** Indicated by cathode band

**Weight:** 0.093 g (approximately)

**DO-214AA (SMB)**

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =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 <sub>RRM</sub>	20	30	40	50	60	90	100	150	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	63	70	105	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	90	100	150	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	2								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50								A
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 2 A @ 25°C I <sub>F</sub> = 2 A @ 100°C	V <sub>F</sub>	0.5 0.4		0.70 0.65		0.85 0.70		0.95 0.80		V
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =100°C T <sub>J</sub> =125 °C	I <sub>R</sub>	0.4				0.1			mA	
		10		5		-				
		-		-		5				
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000								V/μs
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	24 70								°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +125				- 55 to +150				°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150								°C

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

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SS2xx (Note 1)	Prefix "H"	R5	Suffix "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 P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SS26 R5	SS26		R5		
SS26 R5G	SS26		R5	G	Green compound
SS26HR5	SS26	H	R5		AEC-Q101 qualified

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

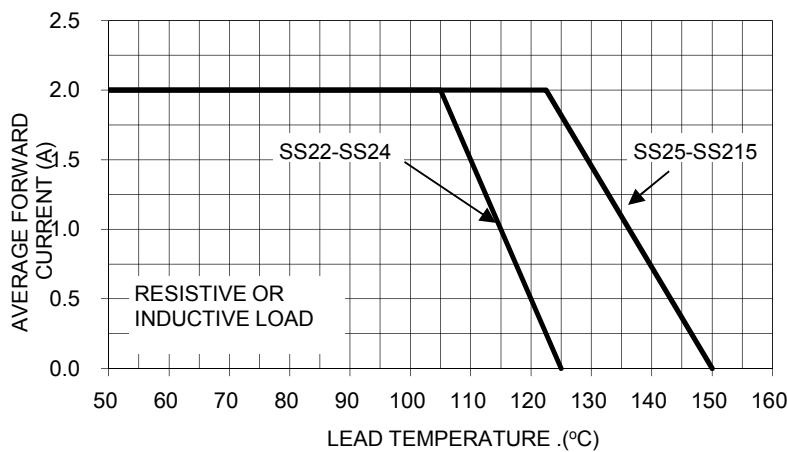


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

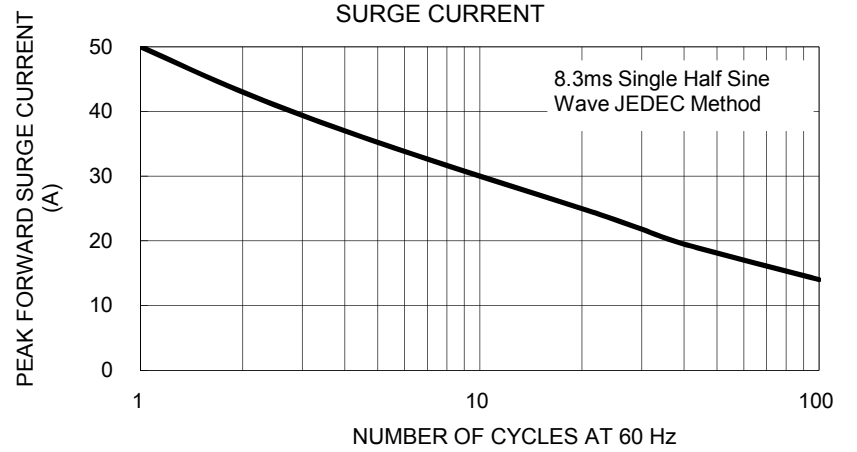


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

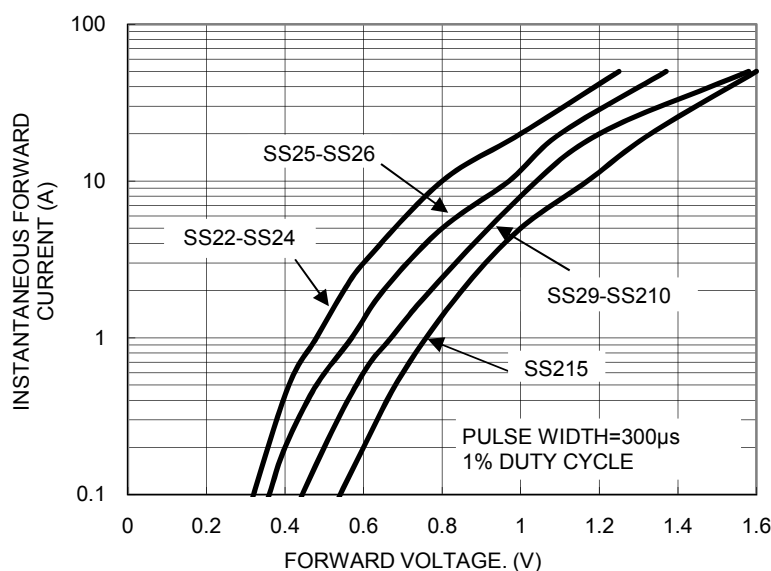


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

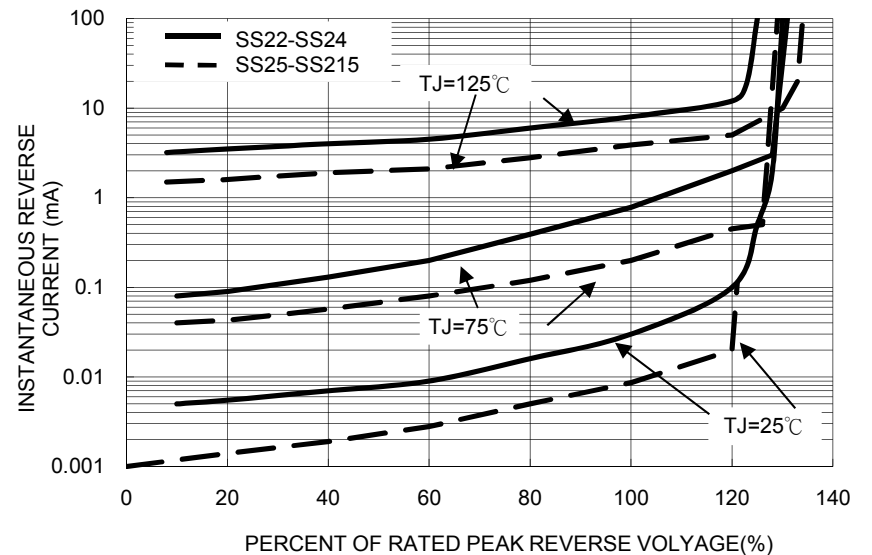
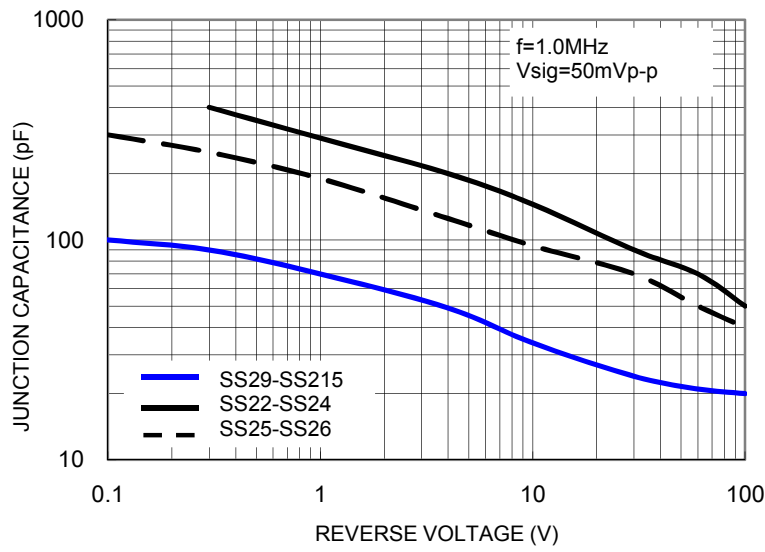
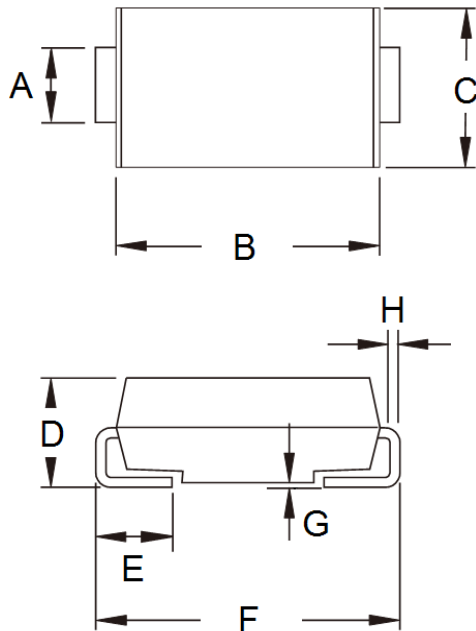


FIG. 5- TYPICAL JUNCTION CAPACITANCE

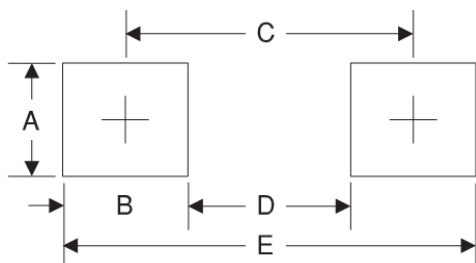


PACKAGE OUTLINE DIMENSIONS



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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