

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
- AEC-Q101 qualified


DO-214AA (SMB)

MECHANICAL DATA

Case: DO-214AA (SMB)

Molding compound, UL flammability classification rating 94V-0

Standard Part No. with suffix "H" means Automotive grade

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

Meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight : 90 mg (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	SSH210	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	100	V
Maximum RMS voltage	V _{RMS}	70	V
Maximum DC blocking voltage	V _{DC}	100	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}	75	A
Peak repetitive reverse surge current at tp=2μs, 1kHz	I _{RRM}	1	A
Maximum instantaneous forward voltage (Note 1) I _F = 2 A @ 25°C I _F = 2 A @ 125°C	V _F	0.79 0.65	V
Voltage rate of change (Rated V _R)	dV/dt	10000	V/μs
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R	1	μA
		1	mA
Typical thermal resistance	R _{θJL}	24	°C/W
Operating junction temperature range	T _J	- 55 to +175	°C
Storage temperature range	T _{STG}	- 55 to +175	°C

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

ORDERING INFORMATION				
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKAGE	PACKING
SSH210	H	R5	SMB	850 / 7" Plastic reel
		R4	SMB	3,000 / 13" Paper reel
		M4	SMB	3,000 / 13" Plastic reel

EXAMPLE				
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	DESCRIPTION
SSH210HR5	SSH210	H	R5	Automotive grade

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

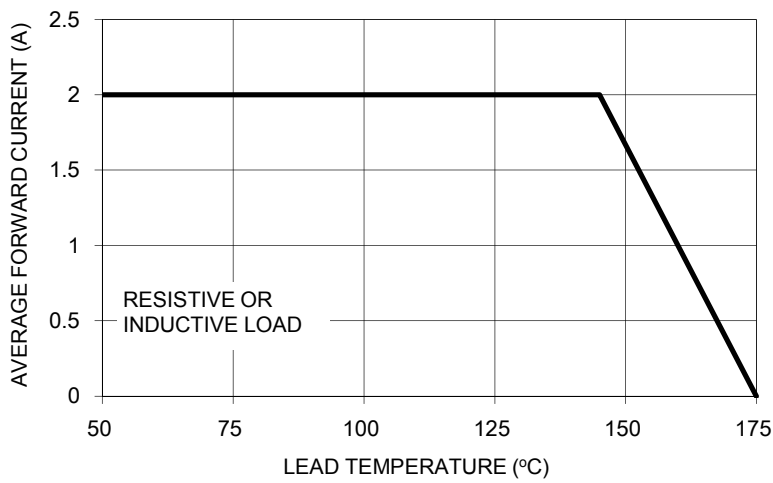


FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

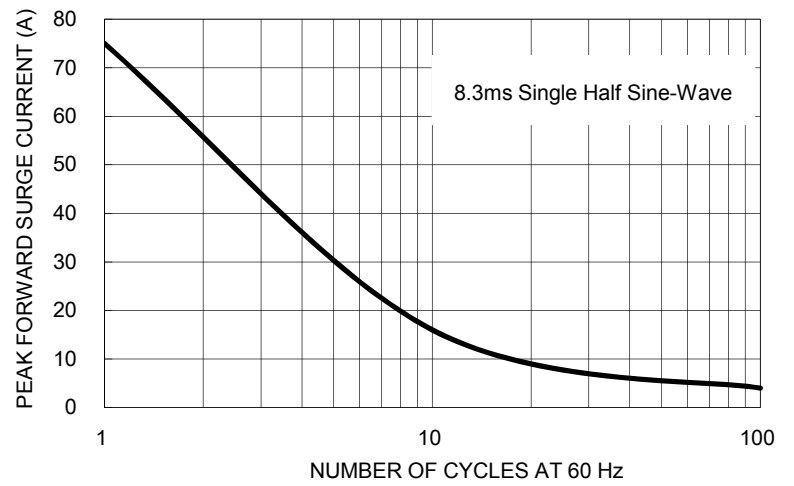


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

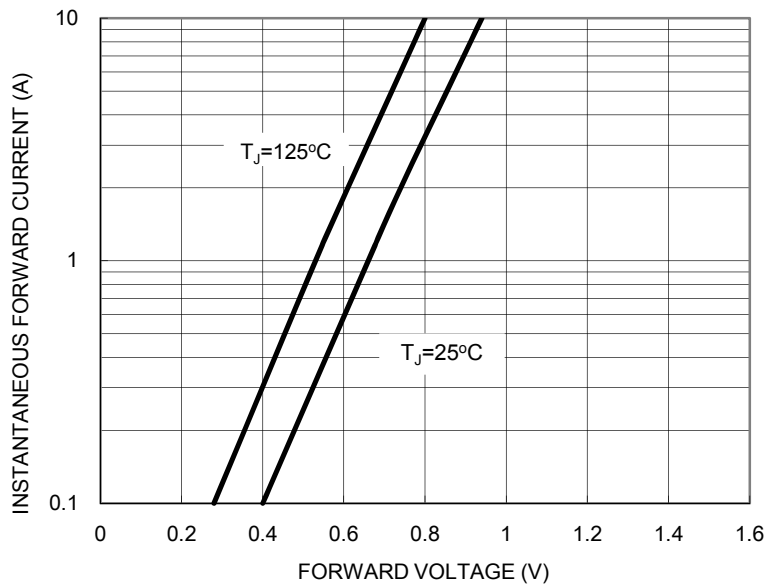


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

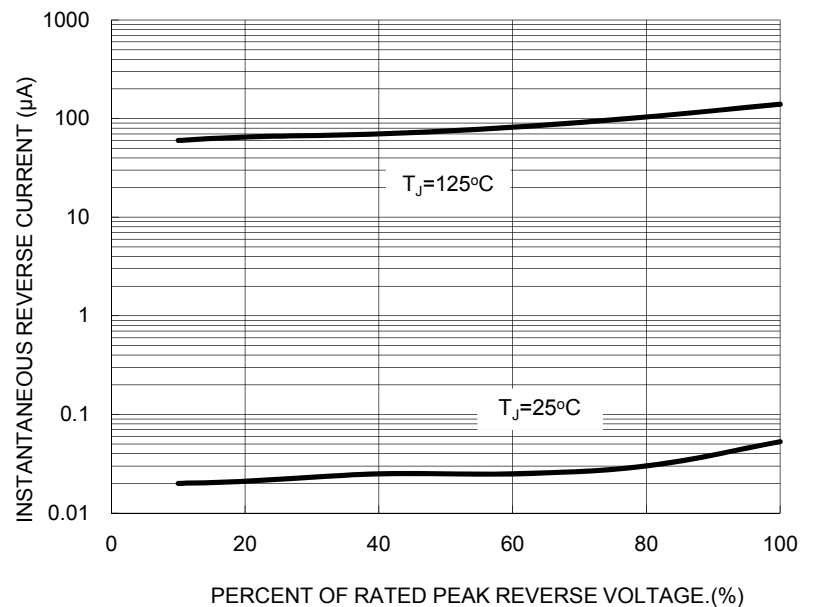
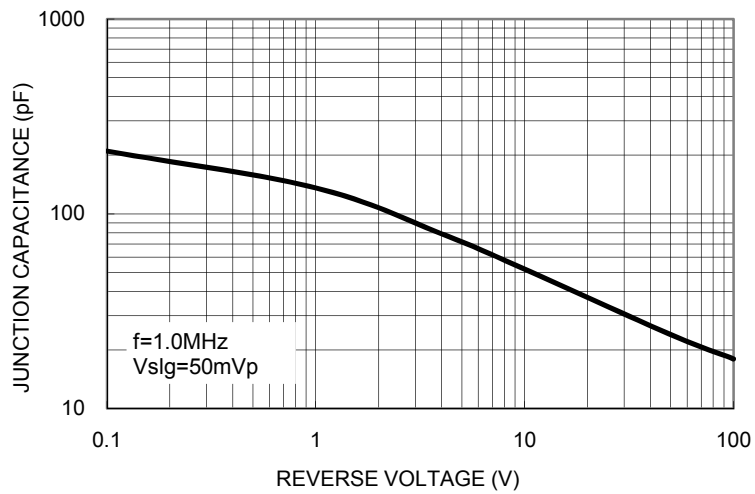
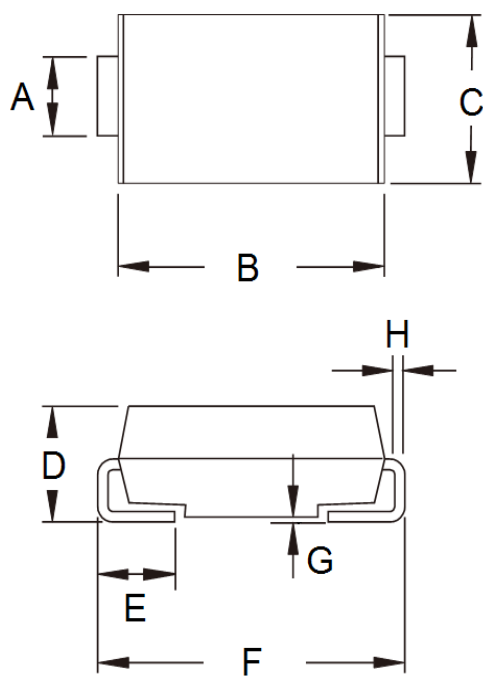


FIG. 5 TYPICAL JUNCTION CAPACITANCE



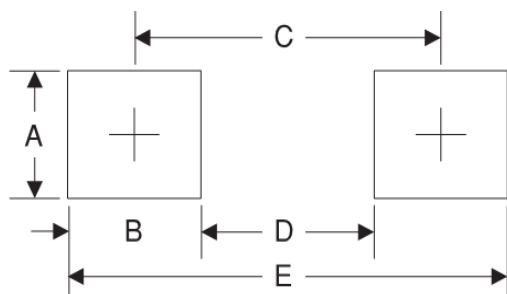
PACKAGE OUTLINE DIMENSIONS

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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