

- Glass passivated junction chip.
- Fast switching for high efficiency
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 qualified



**DO-214AA (SMB)**

**MECHANICAL DATA**

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

Molding compound, UL flammability classification rating 94V-0

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

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

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

Meet JESD 201 class 2 whisker test

**Polarity:** Indicated by cathode band

**Weight:** 0.09 g (approximately)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)**

PARAMETER	SYMBOL	RS 2A	RS 2B	RS 2D	RS 2G	RS 2J	RS 2K
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800
Maximum average forward rectified current	I <sub>F(AV)</sub>	2					
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50					
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 2 A	V <sub>F</sub>	1.3					
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	5 50					
Maximum reverse recovery time (Note 2)	t <sub>rr</sub>	150				250	
Typical junction capacitance (Note 3)	C <sub>J</sub>	50					
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	18 55					
Operating junction temperature range	T <sub>J</sub>	- 55 to +150					
Storage temperature range	T <sub>STG</sub>	- 55 to +150					

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

Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

Note 3: Measured at 1 MHz and Applied V<sub>R</sub>=4.0 Volts

# RATINGS AND CHARACTERISTICS CURVES

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

FIG. 1 FORWARD CURRENT DERATING CURVE

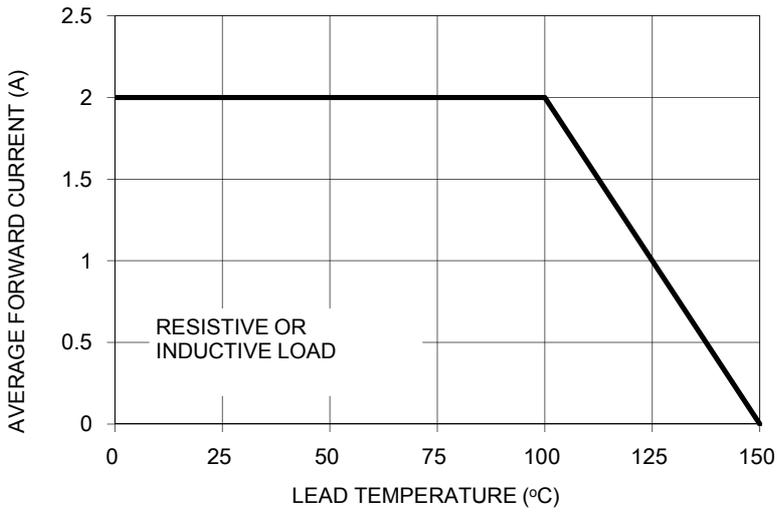


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

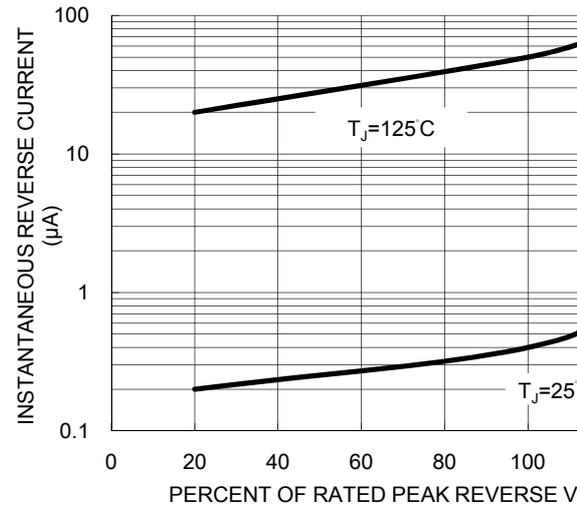


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

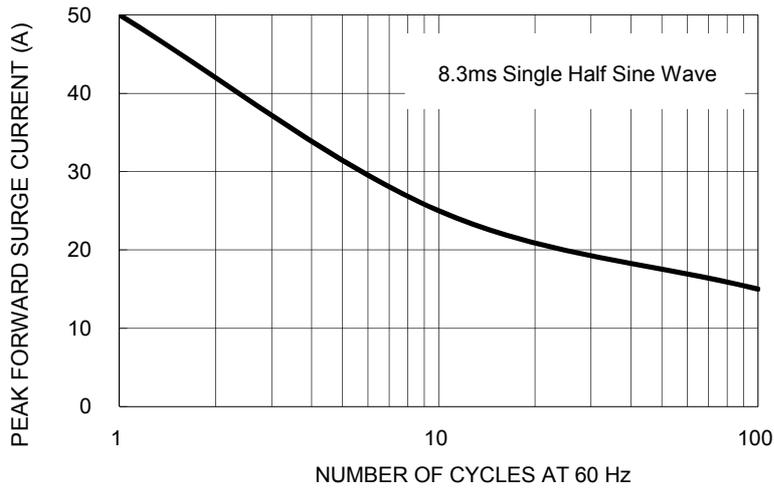
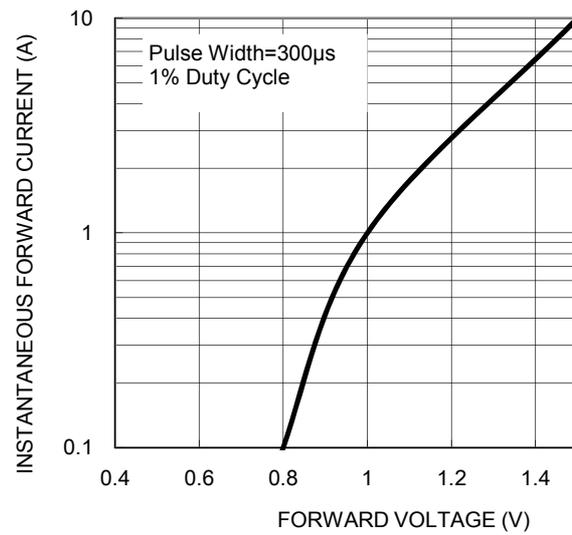
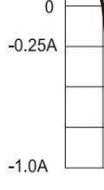
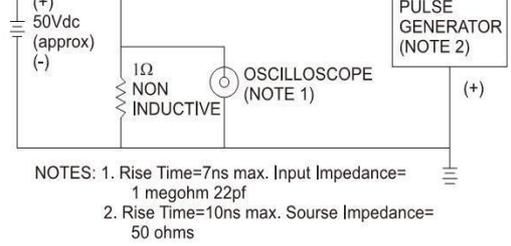
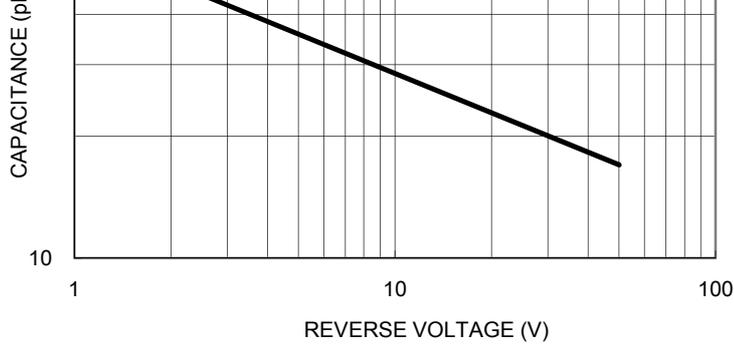


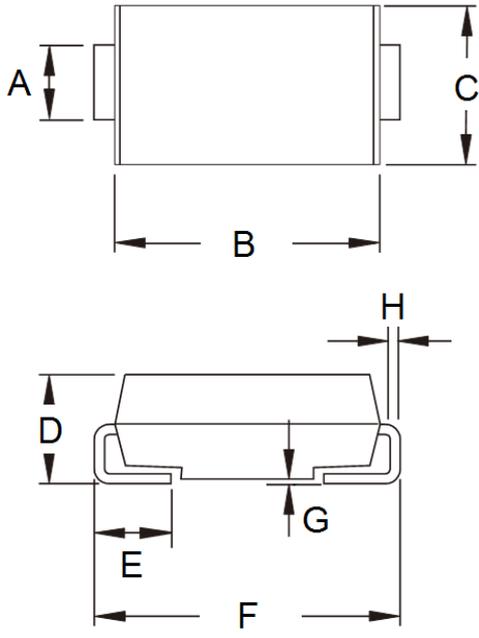
FIG. 4 TYPICAL FORWARD CHARACTERISTICS





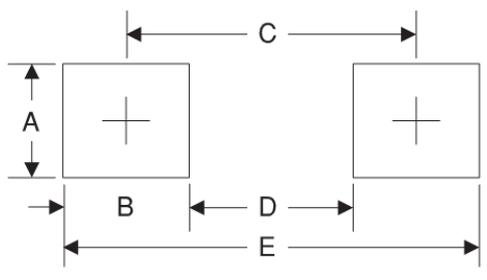
PACKAGE OUTLINE DIMENSIONS

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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