

## Features

- Glass passivated junction chip
- For surface mounted application
- Solder dip 260°C, 10s
- Built-in strain relief, ideal for automated placement
- Fast switching for high efficiency
- Halogen-free according to IEC 61249-2-21 definition
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



DO-214AA (SMB)

## Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power suppliers and other consumer applications.

## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	1200	V
Maximum RMS Voltage	V <sub>RMS</sub>	840	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	1200	V
Maximum Average Output Rectified Current	I <sub>F(AV)</sub>	1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	30	A
Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	3.7	A <sup>2</sup> sec
Typical Thermal Resistance <sup>1</sup>	R <sub>θJA</sub>	90	°C/W
	R <sub>θJC</sub>	20	°C/W
	R <sub>θJL</sub>	25	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

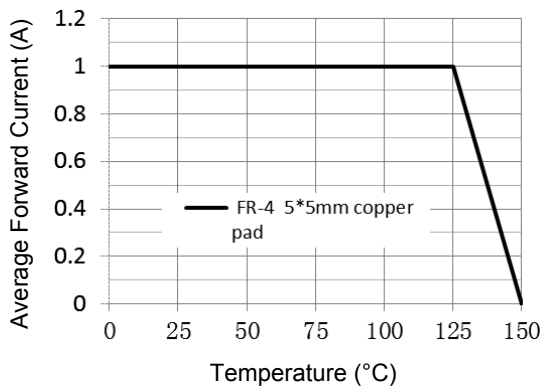
## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Value	Unit
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A, T <sub>A</sub> =25°C	1.9	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	5	μA
		T <sub>A</sub> =125°C	100	
Maximum Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	75	nS
Typical Junction Capacitance	C <sub>J</sub>	4.0V, 1MHz	6.5	pF

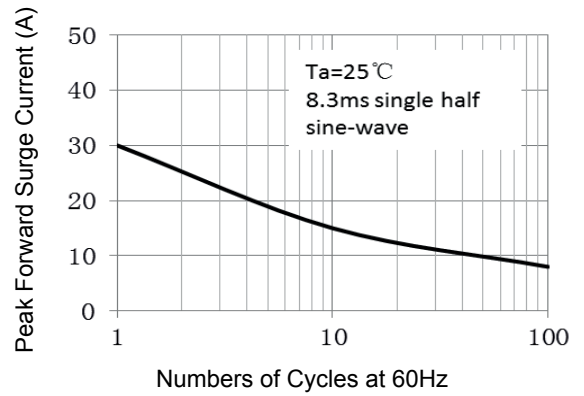
Note:

1. The thermal resistance from junction to ambient, case and lead, mounted on FR-4 P.C.B with 5x5mm copper pads, 2OZ.

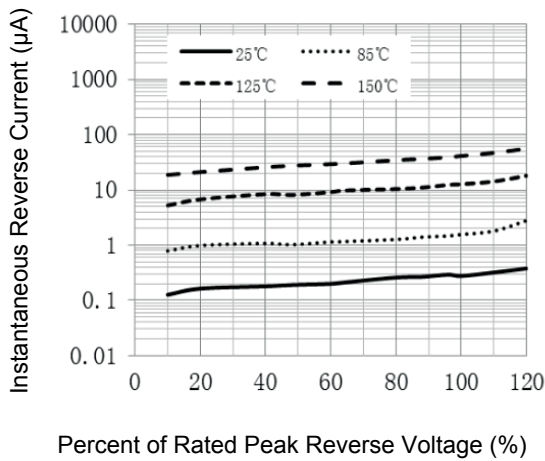
## Ratings and Characteristics Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)



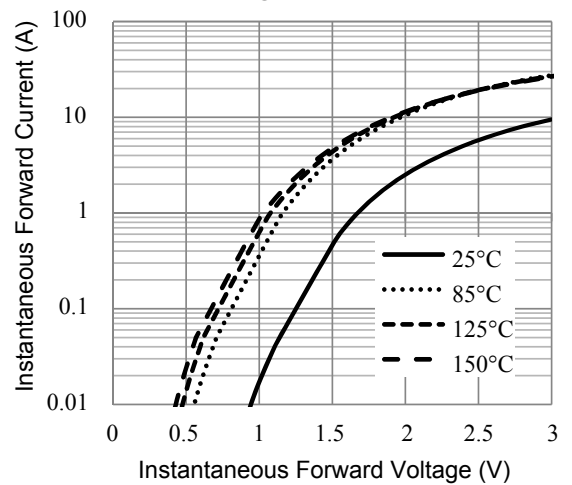
**Figure 1. Forward Current Derating Curve**



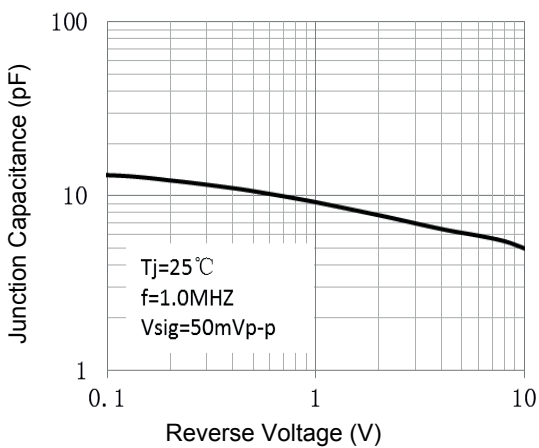
**Figure 2. Maximum Non-Repetitive Peak Forward Surge Current**



**Figure 3. Typical Reverse Characteristics**

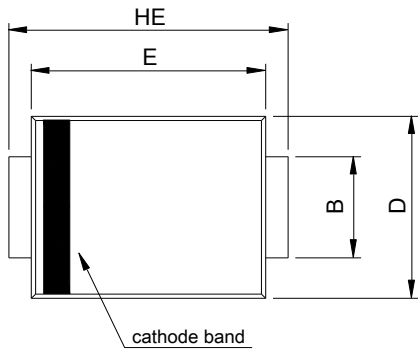


**Figure 4. Typical Instantaneous Forward Characteristics**

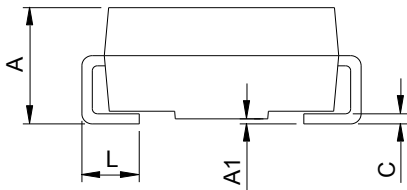


**Figure 5. Typical Junction Capacitance**

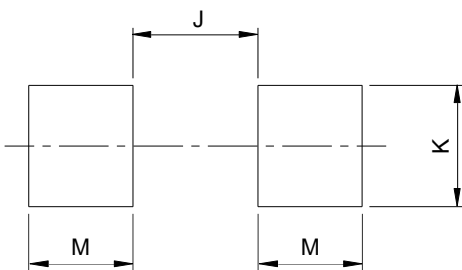
## Package Outline Dimensions (SMB)



SMB (DO-214AA)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.95	2.65	0.077	0.104
A1	0.00	0.20	0.000	0.008
B	1.95	2.20	0.077	0.087
C	0.15	0.31	0.006	0.012
D	3.30	3.95	0.130	0.156
E	4.06	4.60	0.160	0.181
HE	5.10	5.60	0.201	0.220
L	0.76	1.60	0.030	0.063



## Recommended Pad Layout



Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-