

## 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-214AC (SMA)

## 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

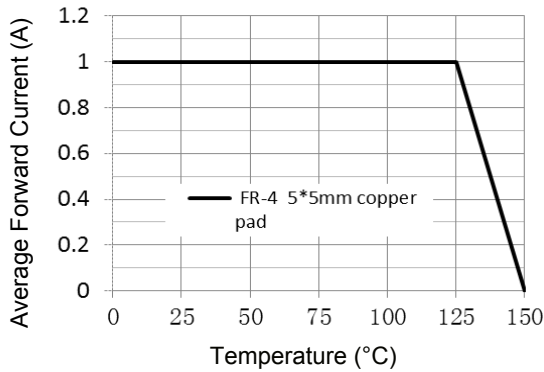
## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

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

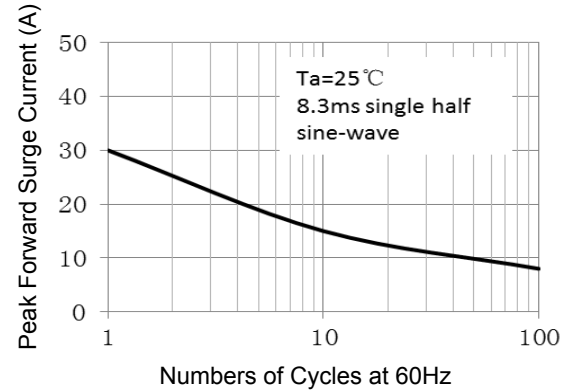
**Notes:** 1. The thermal resistance from junction to ambient, case and lead, mounted on FR-4 P.C.B with 5x5mm copper pads, 2OZ.

## Ratings and Characteristics Curves

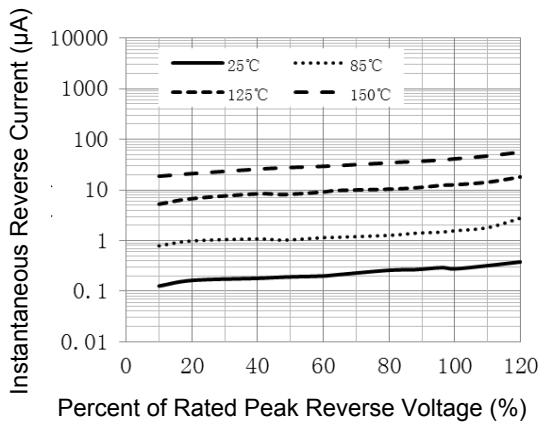
( $T_A = 25^\circ\text{C}$  unless otherwise noted)



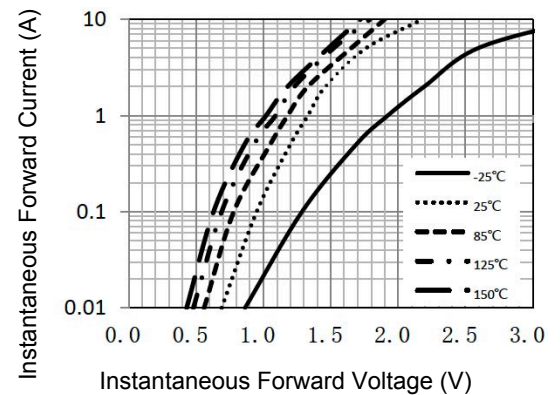
**Figure 1. Forward Current Derating Curve**



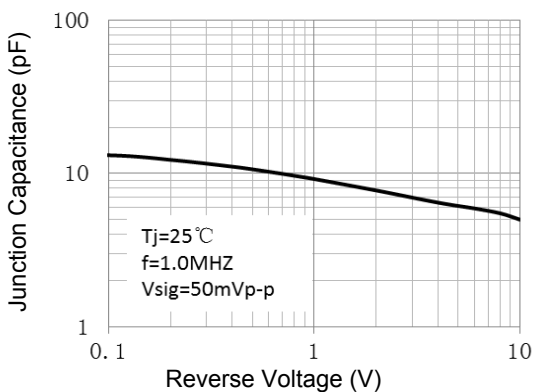
**Figure 2. Maximum Non-Repetitive Peak Forward Surge Current**



**Figure 3. Typical Reverse Characteristics**

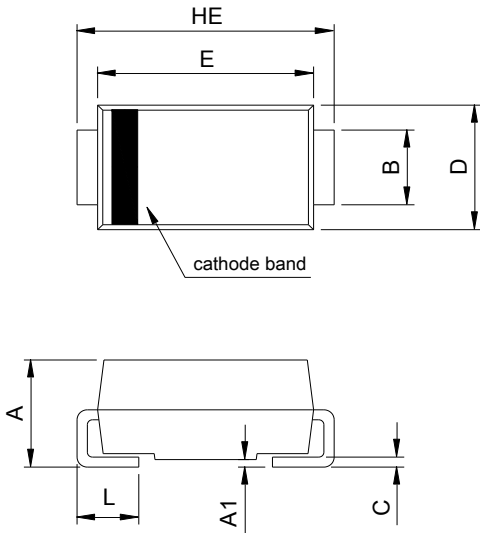


**Figure 4. Typical Instantaneous Forward Characteristics**



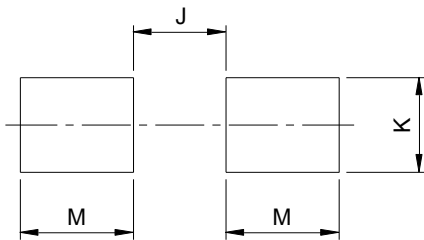
**Figure 5. Typical Junction Capacitance**

## Package Outline Dimensions DO-214AC (SMA)



DIM	SMA (DO-214AC)			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.90	2.30	0.075	0.091
A1	0.00	0.20	0.000	0.008
B	1.25	1.65	0.049	0.065
C	0.15	0.31	0.006	0.012
D	2.35	2.90	0.093	0.114
E	3.99	4.60	0.157	0.181
HE	4.80	5.30	0.189	0.209
L	0.76	1.52	0.030	0.060

## Recommended Pad Layout



DIM	Recommended Pad Layout (Reference ONLY)			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.20	-	0.087
K	1.72	-	0.068	-
M	2.00	-	0.079	-