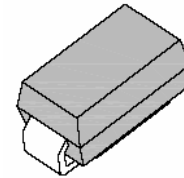


## 1.0A Surface Mount Ultra Fast Recovery Rectifier

### Features

- Glass passivated junction chip
- Fast switching for high efficiency
- For surface mounted application
- High temperature soldering guaranteed: 250°C/10 seconds, at terminals
- Plastic material used carries UL Classification 94V-0
- RoHS Compliance



**SMA**

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

Symbol	Description	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	1.0							A	See Fig.1
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	1.0			1.25	1.7		V	I <sub>F(AV)</sub> =1.0A	
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	T <sub>A</sub> =25°C
		100								T <sub>A</sub> =125°C
<b>T<sub>rr</sub></b>	Maximum Reverse Recovery Time	50				75			nS	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A
<b>C<sub>J</sub></b>	Typical Junction Capacitance	17							pF	V <sub>R</sub> =4V, f=1MHz

Symbol	Description	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit	Conditions
T <sub>J</sub> , T <sub>STG</sub>	Operating Junction and Storage Temperature Range	-55 to +150							°C	

## Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

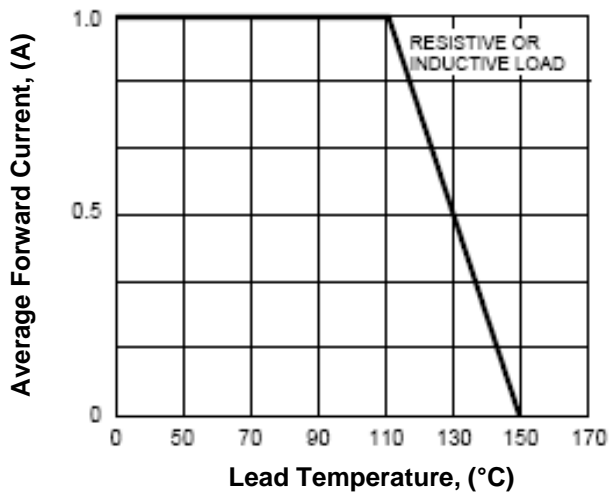


Fig.2- Maximum Non-Repetitive Forward Surge Current

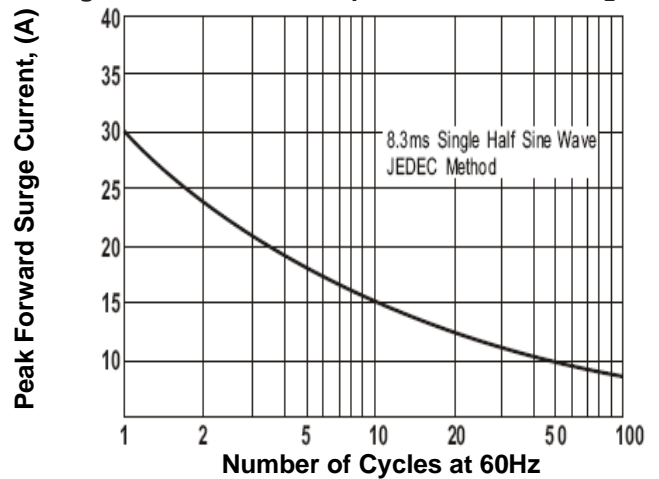


Fig.3- Typical Forward Characteristics

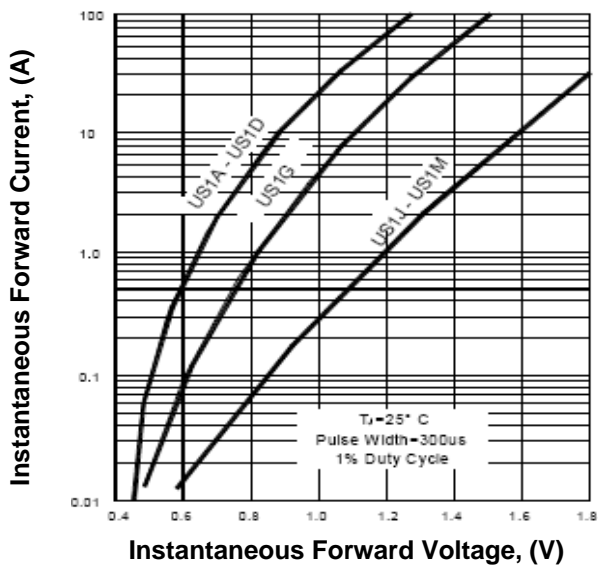
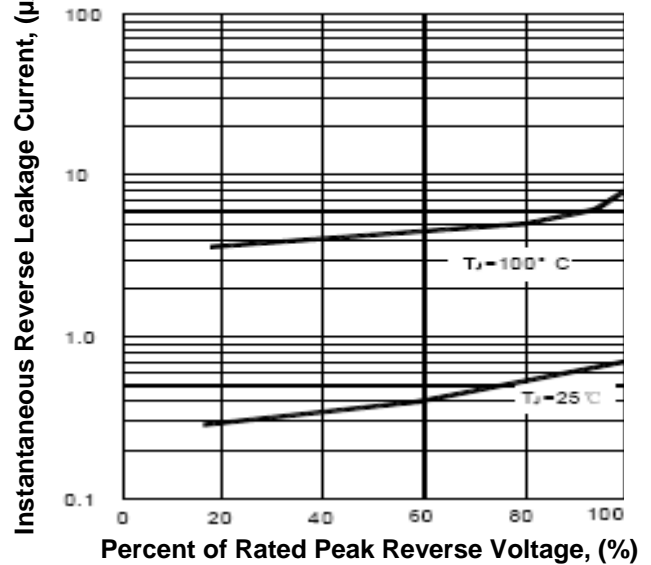
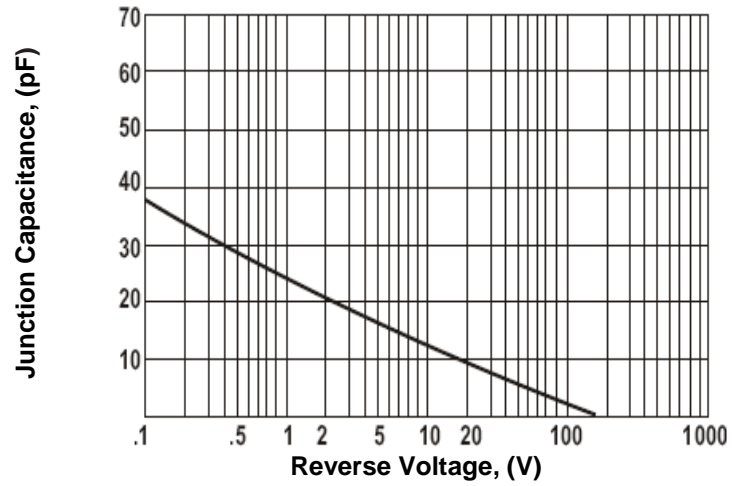


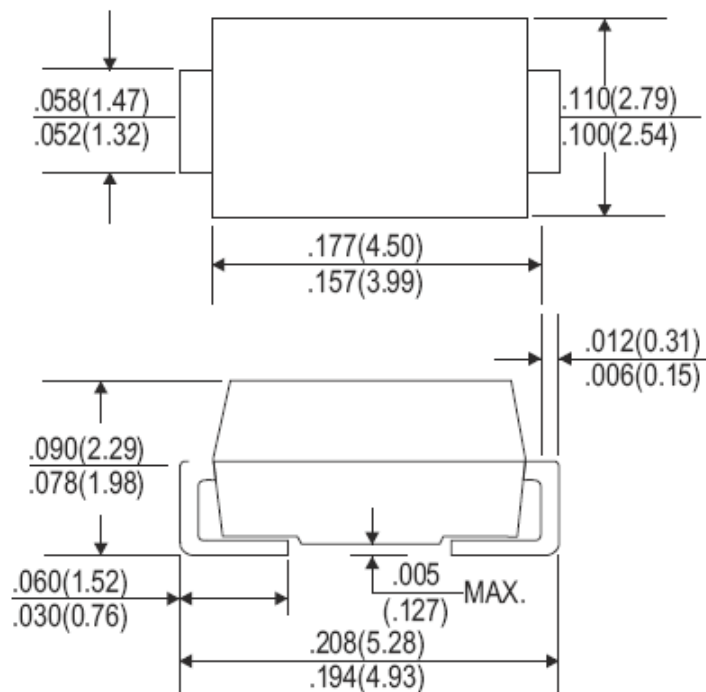
Fig.4- Typical Reverse Characteristics



**Fig.5-Typical Junction Capacitance**



**Dimensions in inches (mm)**



**SMA (DO-214AC)**