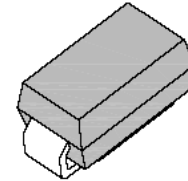


## 1.0A Surface Mount Ultra Fast Recovery Rectifier

### 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

SMA



### Mechanical Data

<b>Case:</b>	DO-214AC (SMA) molded plastic
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Mounting Position:</b>	Any
<b>Weight:</b>	0.002 ounce, 0.064 gram

### 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>VRRM</b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>IF(AV)</b>	Maximum Average Forward Rectified Current	1.0							A	See Fig.1
<b>IFSM</b>	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>VF</b>	Maximum Instantaneous Forward Voltage	1.0			1.25	1.7		V	IF(AV)=1.0A	
<b>IR</b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							$\mu\text{A}$	TA=25°C
		100								TA=125°C
<b>Trr</b>	Maximum Reverse Recovery Time	50				75		nS	IF=0.5A, IR=1.0A, Irr=0.25A	
<b>CJ</b>	Typical Junction Capacitance	17							pF	VR=4V, f=1MHz

# 1.0A Surface Mount Ultra Fast Recovery Rectifier

## US1A - US1M

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

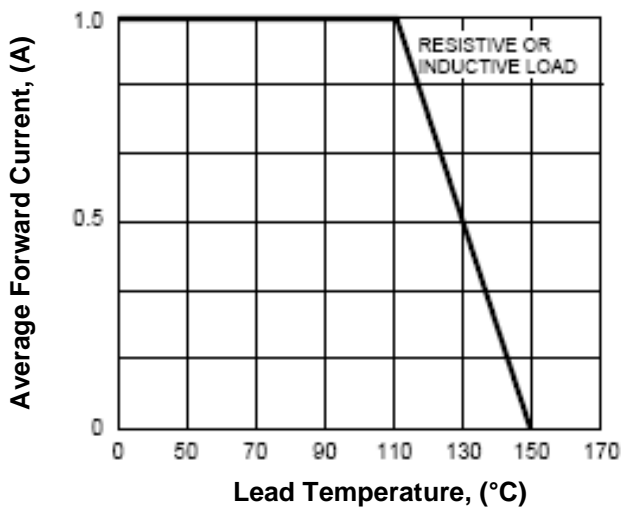


Fig.2- Maximum Non-Repetitive Forward Surge Current

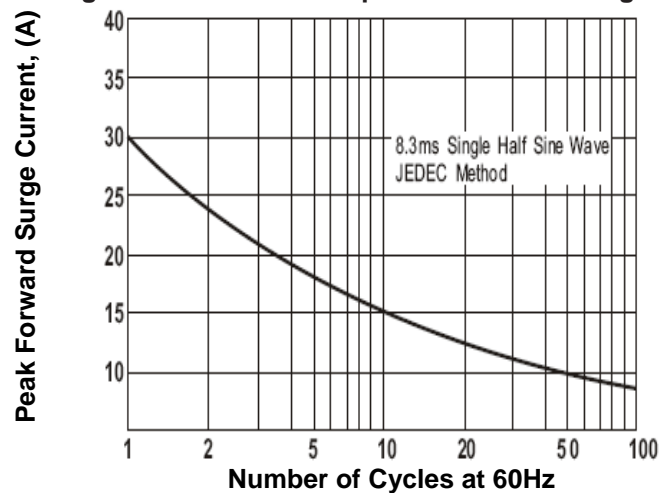


Fig.3- Typical Forward Characteristics

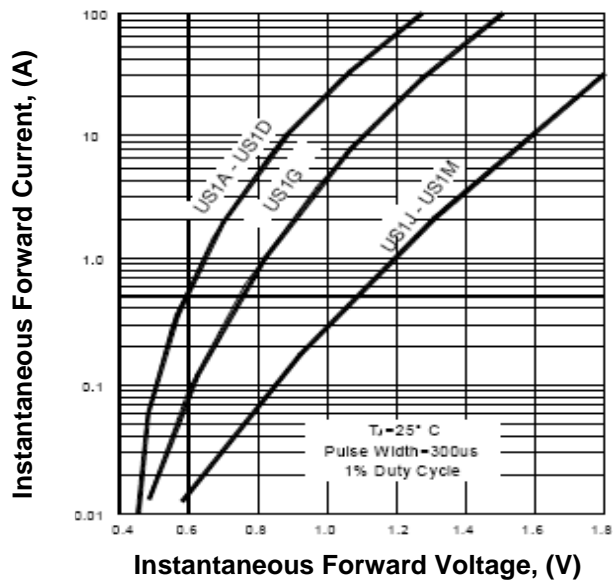
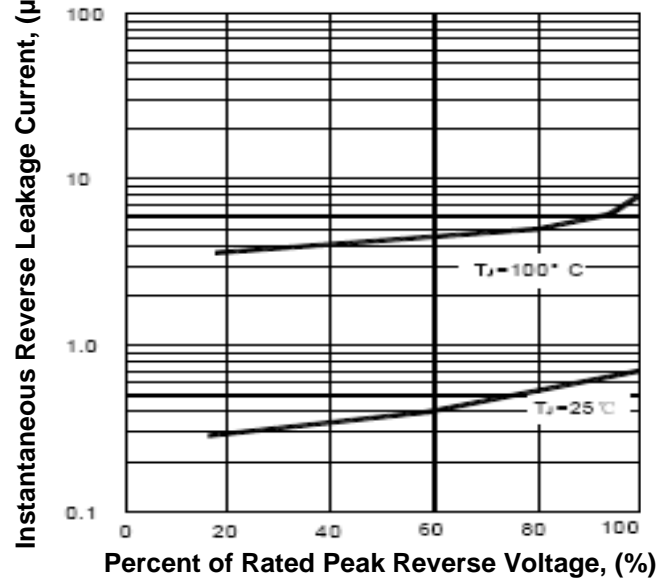


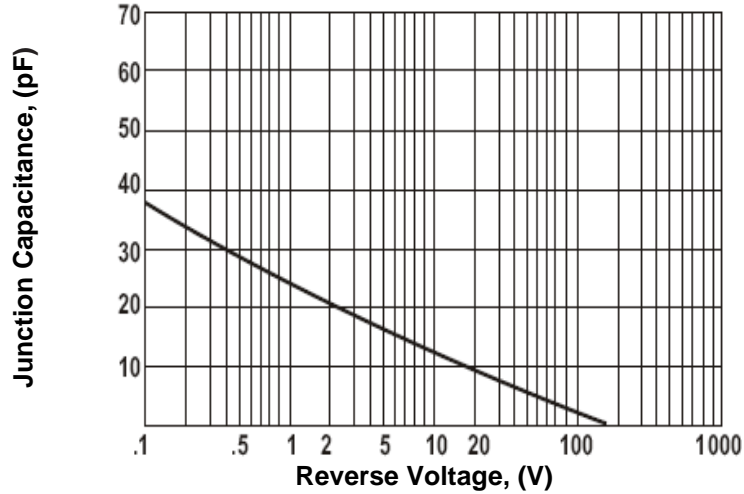
Fig.4- Typical Reverse Characteristics



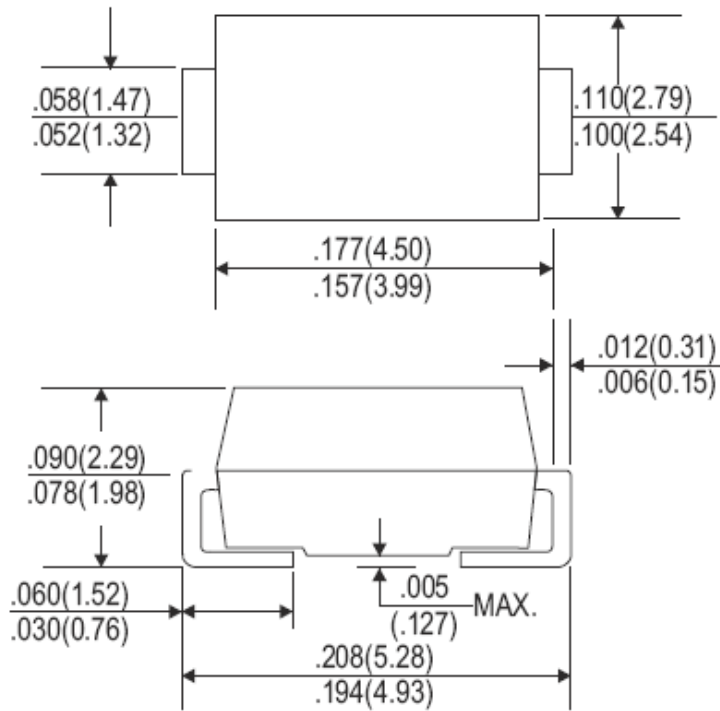
# 1.0A Surface Mount Ultra Fast Recovery Rectifier

## US1A - US1M

Fig.5-Typical Junction Capacitance



### Dimensions in inches (mm)

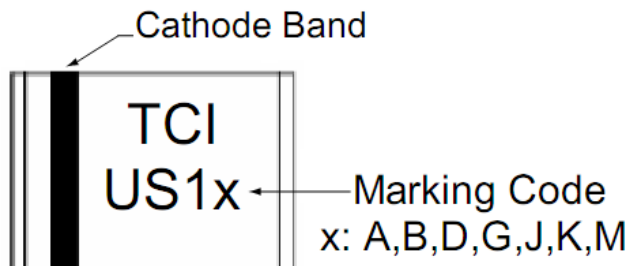


SMA (DO-214AC)

# 1.0A Surface Mount Ultra Fast Recovery Rectifier

US1A - US1M

## Marking Information



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