



## Surface Mount High Efficiency Rectifier

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Built-in strain relief
- Fast switching speed for high efficiency
- Glass passivated chip junction
- High temperature soldering guaranteed:  
250°C/10 seconds
- RoHS and REACH Compliance



### Mechanical Data

<b>Case:</b>	JEDEC DO-214AA molded plastic over glass passivated chip
<b>Polarity:</b>	Color band denotes cathode end.
<b>Terminal:</b>	Solder plated, solderable per MIL-STD 750, Method 2026
<b>Mounting Position:</b>	/
<b>Weight:</b>	0.003 ounce, 0.093 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

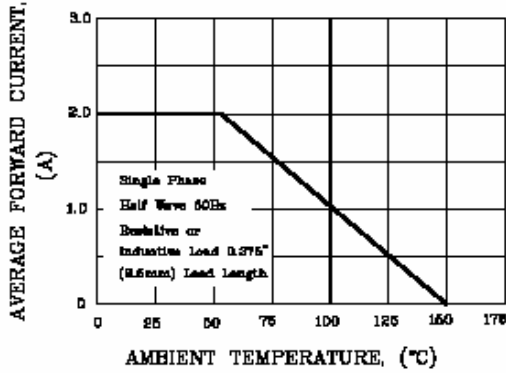
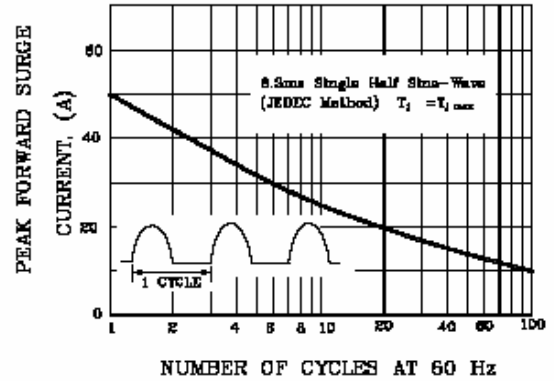
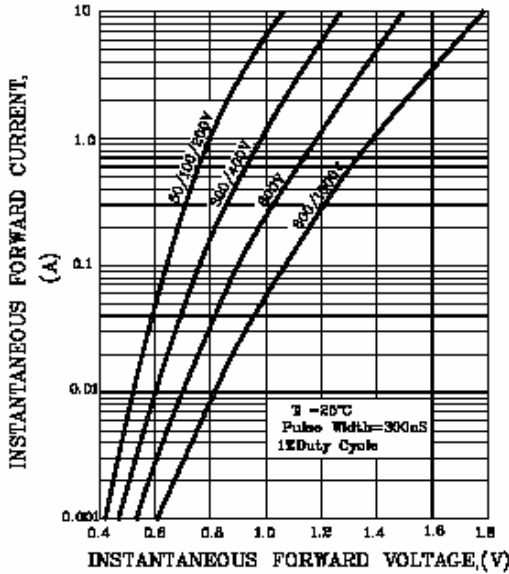
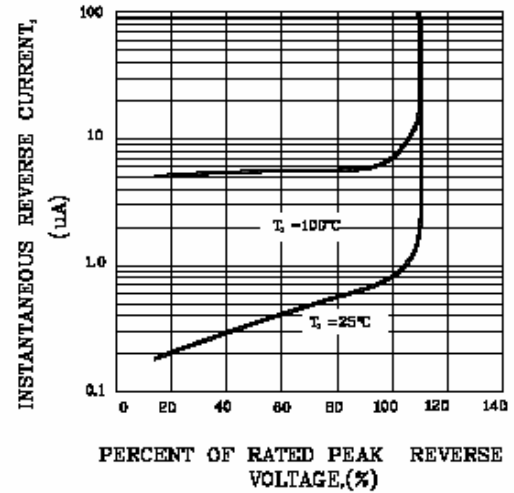
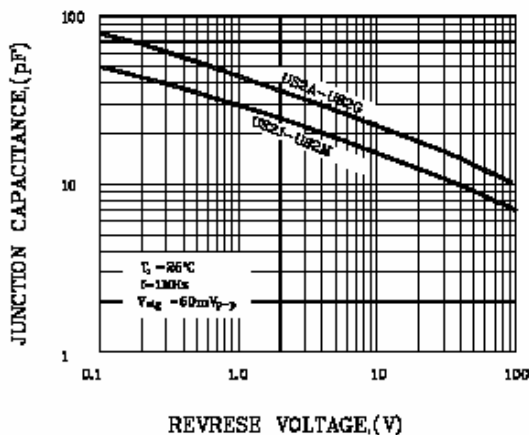
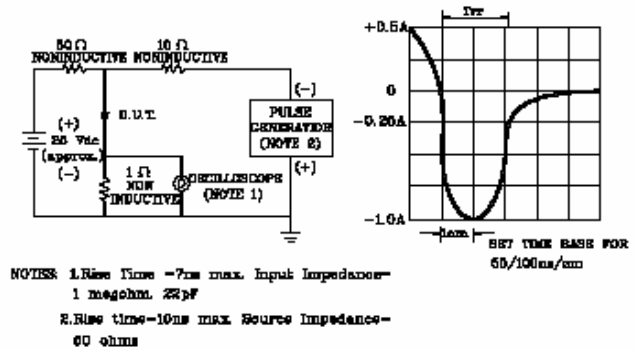
Symbol	Description	US2A	US2B	US2D	US2G	US2J	US2K	US2M	Unit	Conditions
<b>VRRM</b>	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Max RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I(AV)</b>	Max Average Forward Rectified Current	2.0							A	TA=55°C ( Note 2)
<b>IFSM</b>	Peak Forward Surge Current, 8.3ms single half sine	50							A	JEDEC method
<b>TJ,TSTG</b>	Operating and Storage Temperature Range	-55 to +150							°C	

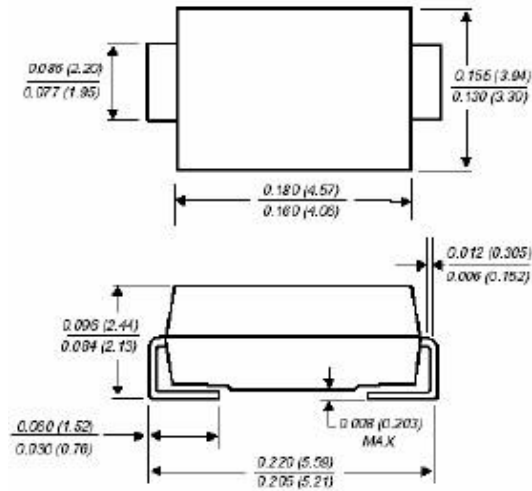
### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	US2A	US2B	US2D	US2G	US2J	US2K	US2M	Unit	Conditions
<b>VF</b>	Max Instantaneous Forward Voltage	1.0		1.3			1.7		V	2.0A
<b>Rθ-JA</b>	Typical Thermal Resistance	75							°C/W	Note 2
<b>Rθ-JL</b>		17								
<b>IR</b>	Max DC Reverse Current at Rated DC Blocking Voltage	5							µA	TA=25°C
		100								TA=125°C
<b>TRR</b>	Maximum reverse recovery time	50			75				nS	Note 1
<b>CJ</b>	Typical Junction capacitance	50			30				pF	Measured at 1.0MHz/4.0V

**Note:**

1. Test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
2. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.3"x 0.3" ( 8.0 x 8.0 mm) copper pad areas.

**US2A ~ US2M**
**RATINGS AND CHARACTERISTIC CURVES US2A THRU US2M**
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**

**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

**FIG.5-TYPICAL JUNCTION CAPACITANCE**

**FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**


**Dimensions in inches (mm)***Dimensions in inches and (millimeters)***DO-214AA (SMB)****Contact us:****US HEADQUARTERS****MEI SEMI INC.****2902** Corvin Drive, Santa Clara, CA95051, USA

Tel: 1-408-733-0808 Fax: 1-408-733-2828