

# HS3A /UF3A THRU HS3M/UF3M

**SURFACE MOUNT  
HIGH EFFICIENCY (ULTRA FAST)  
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE  
50 to 1000 Volts  
Forward Current  
3.0 Amperes

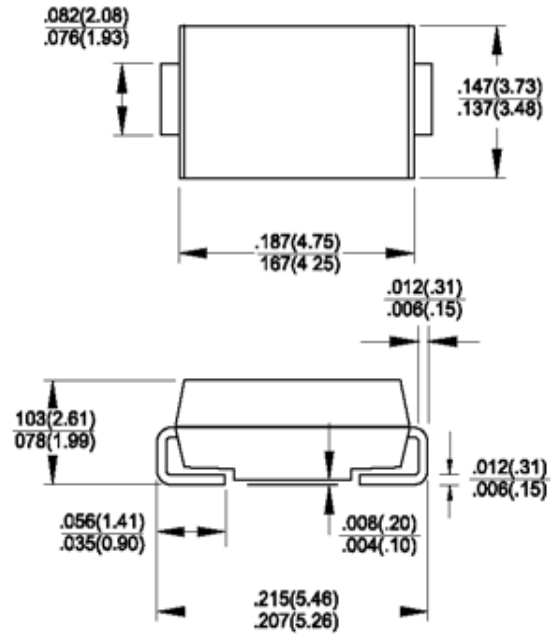
## FEATURES

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

## MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams
- Mounting position: Any

## DO-214AA (SMB)



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	HS3A	HS3B	HS3D	HS3G	HS3J	HS3K	HS3M	UNIT
		UF3A	UF3B	UF3D	UF3G	UF3J	UF3K	UF3M	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =55 °C	I <sub>(AV)</sub>	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	150							A
Peak Forward Voltage at 3.0A DC	V <sub>F</sub>	1.0		1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0			100				μA
Maximum Reverse Recovery Time(Note 1)	T <sub>RR</sub>	50				75			nS
Typical Junction Capacitance (Note2)	C <sub>J</sub>	50				30			pF
Typical Thermal Resistance (Note3)	R <sub>θJA</sub>	20							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES: 1.Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient

# RATING AND CHARACTERISTIC CURVES HS3A /UF3A THRU HS3M/UF3M

FIG. 1 – FORWARD CURRENT DERATING CURVE

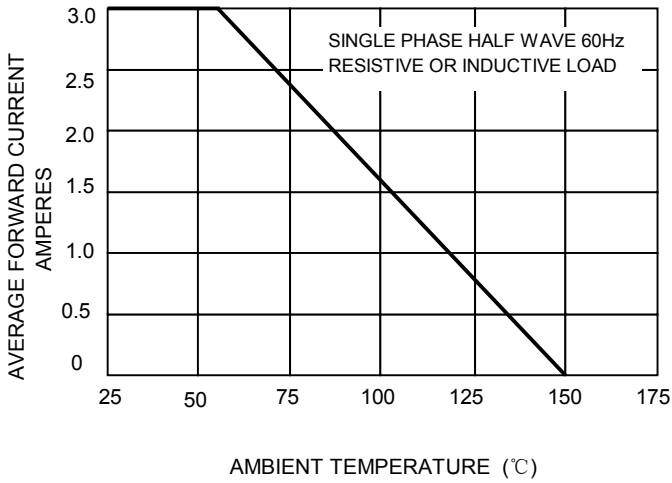


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

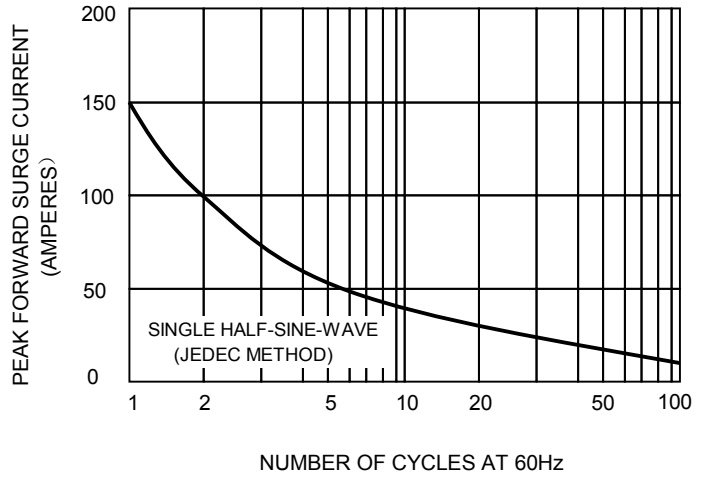


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

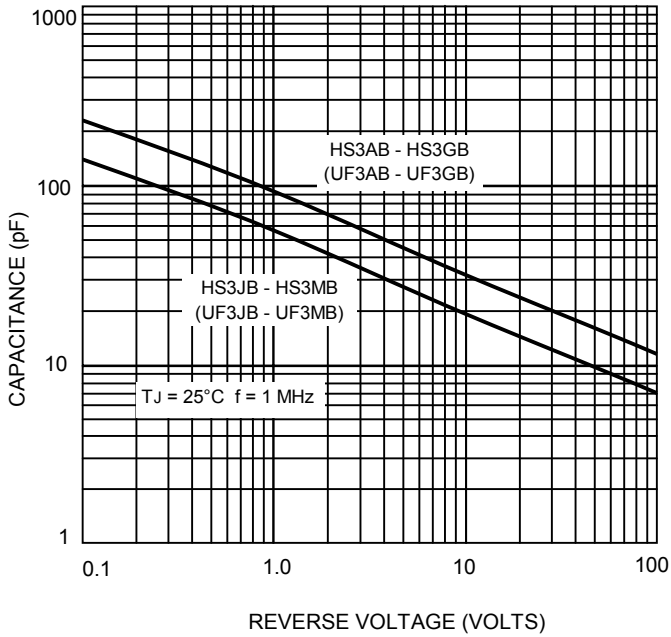


FIG. 4-TYPICAL FORWARD CHARACTERISTICS

