

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

REVERSE VOLTAGE - **50** to **1000** Volts  
FORWARD CURRENT - **3.0** Amperes

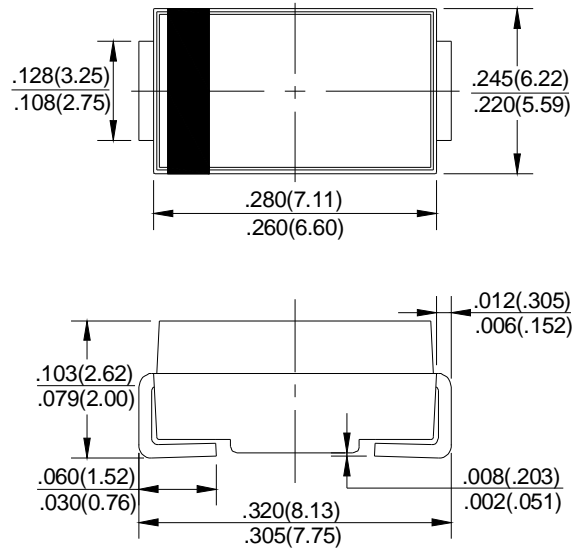
### FEATURES

- 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

**SMC**



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	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA =55 °C	I(AV)	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	100							A
Peak Forward Voltage at 3.0A DC	VF	1.0		1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	5.0							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)	RθJA	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 IF=0.5A, IR=1A , IRR=0.25A  
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC  
3.Thermal resistance junction to ambient

FIG. 1 – FORWARD CURRENT DERATING CURVE

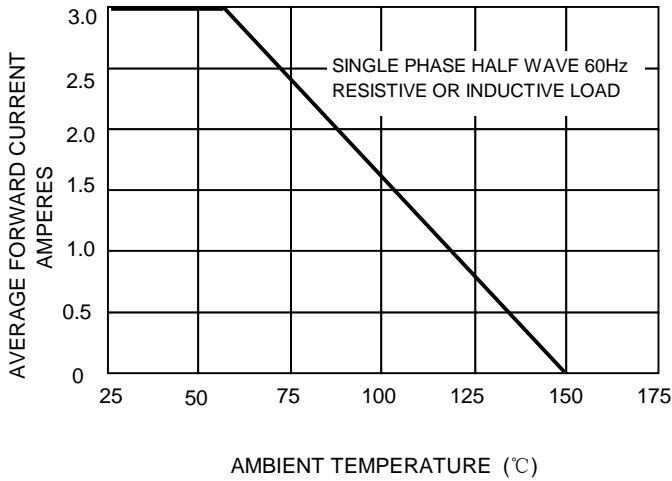


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

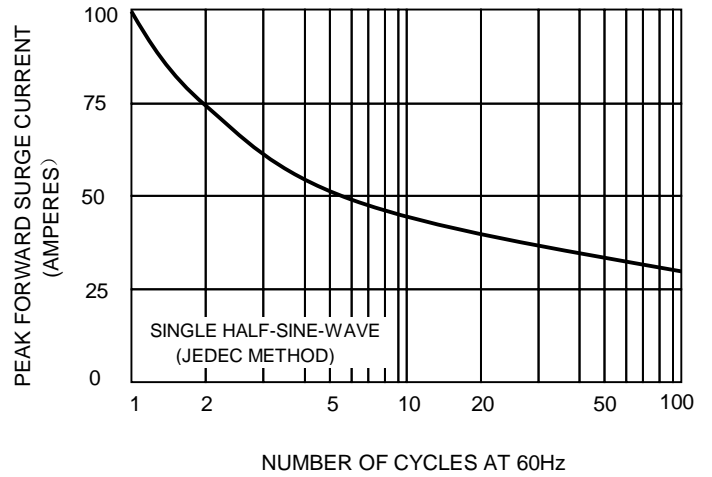


FIG.3 – TYPICAL JUNCTION CAPACITANCE

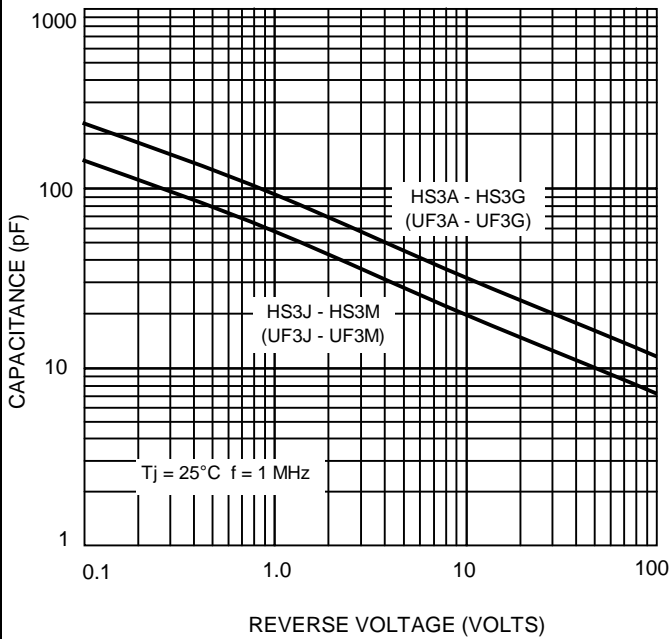


FIG.4-TYPICAL FORWARD CHARACTERISTICS

