



HS1X / UF1X SERIES

SURFACE MOUNT HIGH EFFICIENCY (ULTRA FAST) GLASS PASSIVATED RECTIFIERS

FEATURES

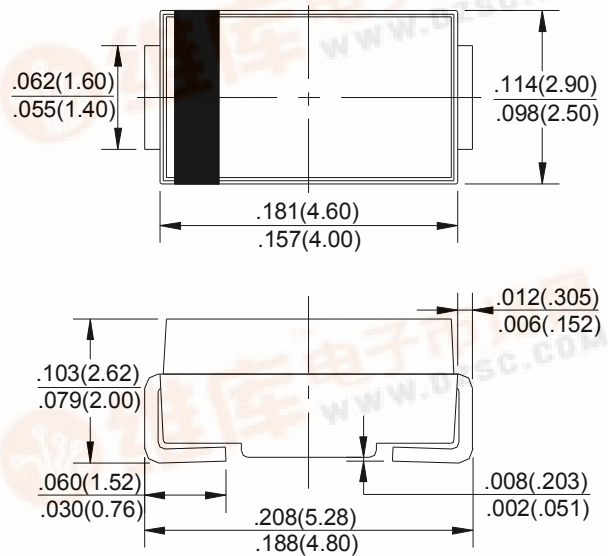
- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounces, 0.064 grams
- Mounting position: Any

REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 1.0 Ampere

SMA



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	HS1A	HS1B	HS1D	HS1G	HS1J	HS1K	HS1M	UNIT
		UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UF1M	
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 ℃	I(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	30							A
Peak Forward Voltage at 1.0A DC	VF	1.0			1.3	1.7			V
Maximum DC Reverse Current @TJ=25℃ at Rated DC Blocking Voltage @TJ=100℃	IR	5.0 100							μA
Maximum Reverse Recovery Time(Note 1)	TRR	50				75			nS
Typical Junction Capacitance (Note2)	CJ	20				10			pF
Typical Thermal Resistance (Note3)	RθJA	25							℃/W
Operating Temperature Range	TJ	-55 to +150							℃
Storage Temperature Range	TSTG	-55 to +150							℃

NOTES: 1. Measured with I_F=0.5A, I_R=1A, I_{RR}=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

HS1X / UF1X SERIES



FIG. 1 – FORWARD CURRENT DERATING CURVE

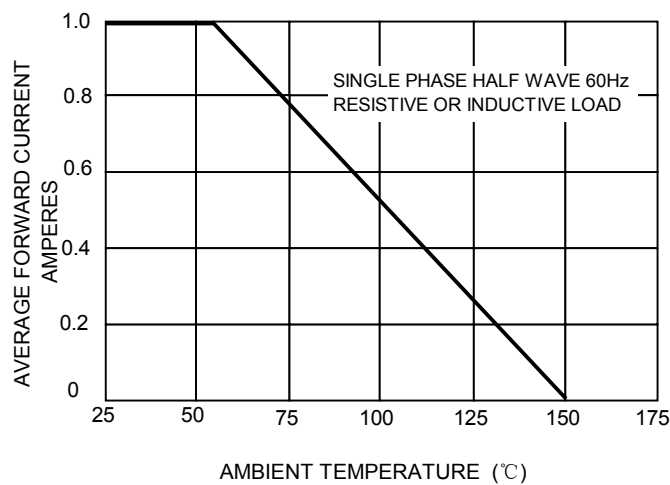


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

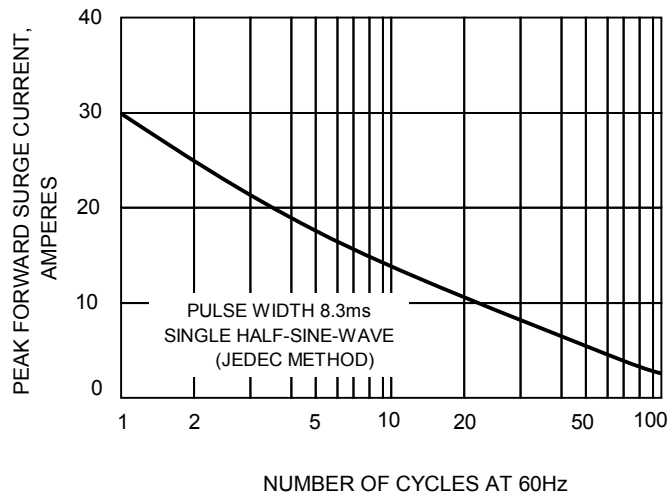


FIG.3 – TYPICAL JUNCTION CAPACITANCE

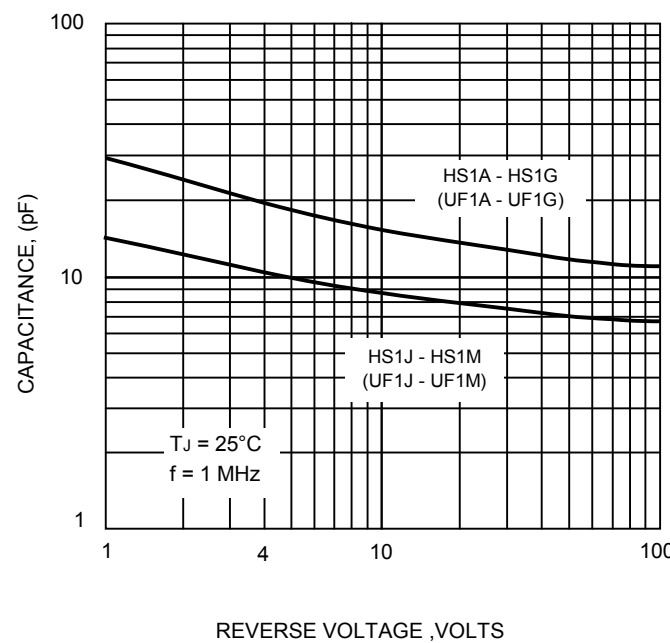


FIG.4-TYPICAL FORWARD CHARACTERISTICS

