



HS1XA / UF1XA SERIES

SURFACE MOUNT HIGH EFFICIENCY (ULTRA FAST) RECTIFIERS	REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 1.0 Ampere
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, 0.053 grams ● Mounting position: Any	A-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	HS1AA	HS1BA	HS1DA	HS1GA	HS1JA	HS1KA	HS1MA	UNIT
		UF1AA	UF1BA	UF1DA	UF1GA	UF1JA	UF1KA	UF1MA	
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 at Rated DC Blocking Voltage @TJ=25℃ @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 +125							℃
Storage Temperature Range	TSTG	-55 to +150							℃

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.

RATING AND CHARACTERISTIC CURVES
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FIG. 1 – FORWARD CURRENT DERATING CURVE

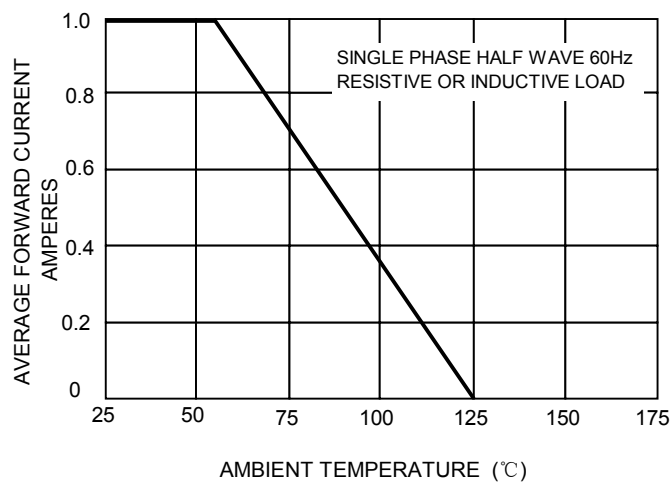


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

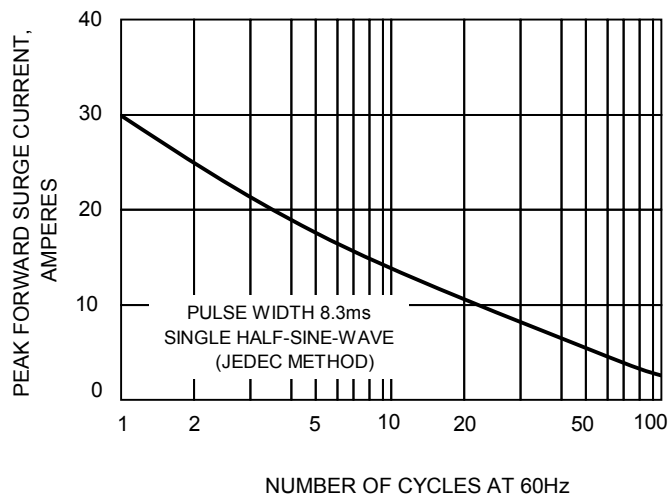


FIG.3 – TYPICAL JUNCTION CAPACITANCE

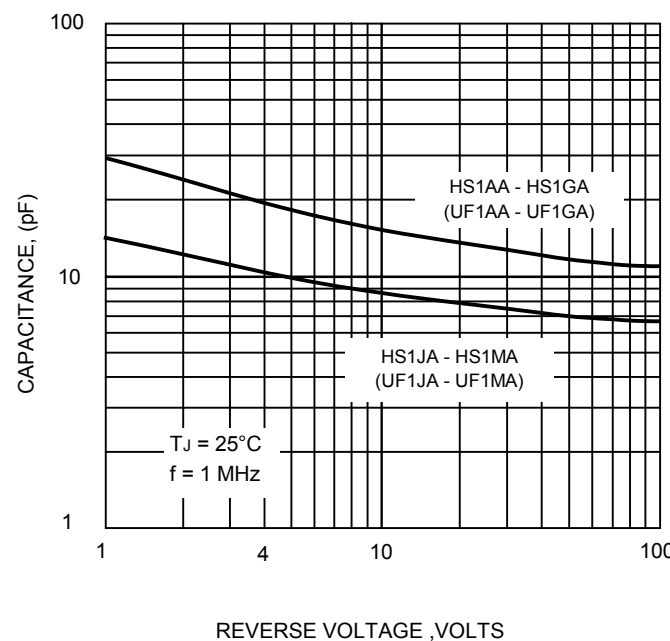


FIG.4-TYPICAL FORWARD CHARACTERISTICS

