

SURFACE MOUNT HIGH EFFICIENCY (ULTRA FAST) RECTIFIERS

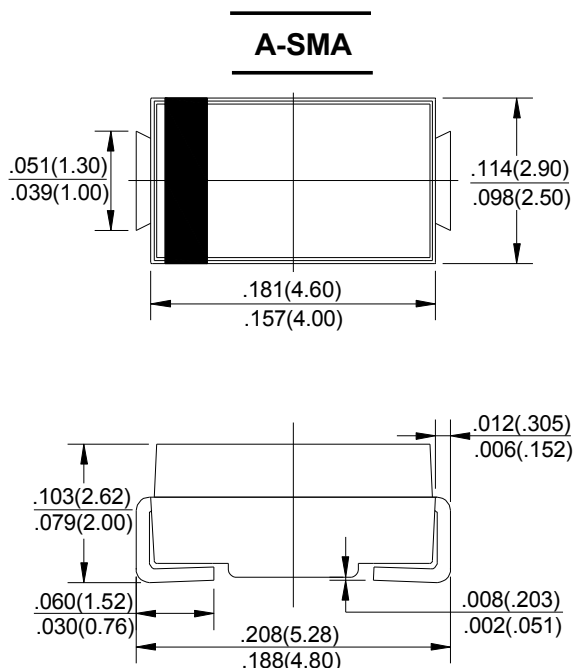
REVERSE VOLTAGE - **50** to **1000** Volts
FORWARD CURRENT - **1.0** Ampere

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



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 °C	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	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							°C/W
Operating Temperature Range	TJ	-55 to +125							°C
Storage Temperature Range	TSTG	-55 to +150							°C

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.

FIG. 1 – FORWARD CURRENT DERATING CURVE

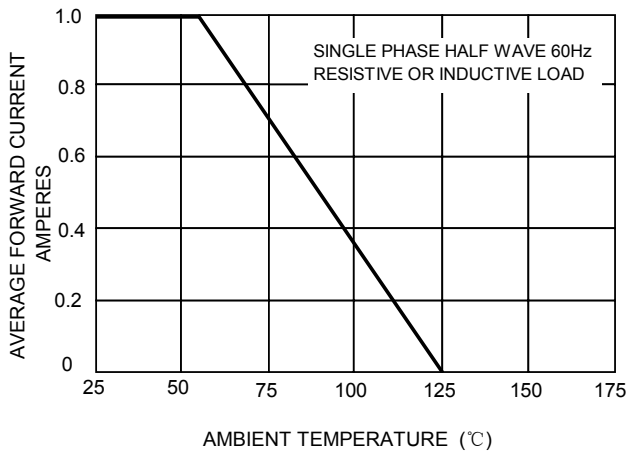


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

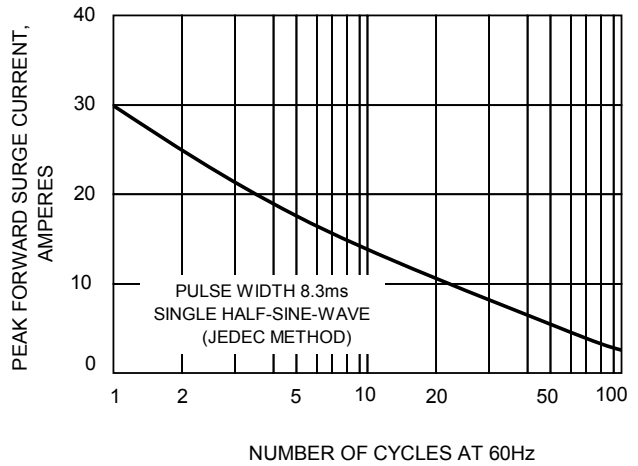


FIG.3 – TYPICAL JUNCTION CAPACITANCE

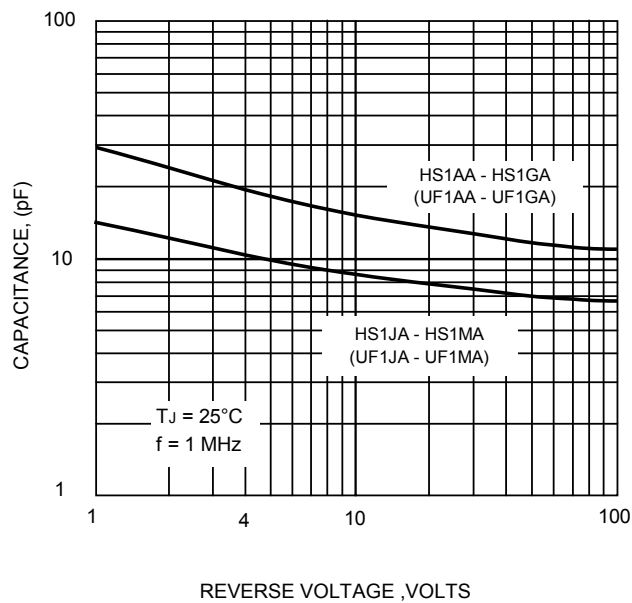


FIG.4-TYPICAL FORWARD CHARACTERISTICS

