

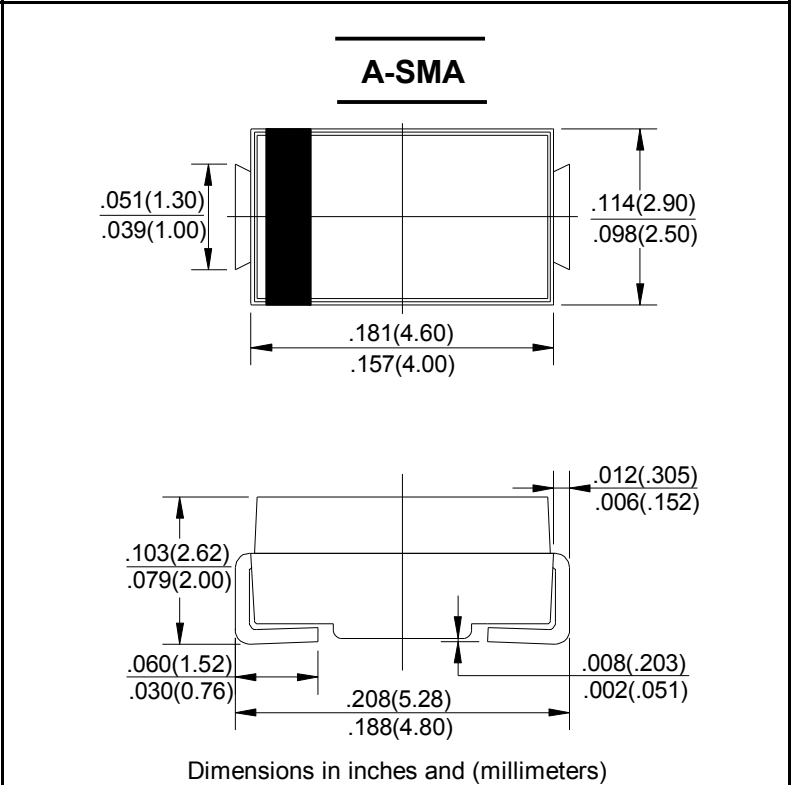
SURFACE MOUNT HIGH EFFICIENCY (ULTRA FAST) RECTIFIERS	REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 1.0 Ampere
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FEATURES

- 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



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	V _{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current @T _A =55 °C	I _(AV)	1.0							A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	30							A	
Peak Forward Voltage at 1.0A DC	V _F	1.0		1.3		1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	I _R	5.0				100				μA
Maximum Reverse Recovery Time(Note 1)	T _{RR}	50				75				nS
Typical Junction Capacitance (Note2)	C _J	20				10				pF
Typical Thermal Resistance (Note3)	R _{θJA}	25								°C/W
Operating Temperature Range	T _J	-55 to +125								°C
Storage Temperature Range	T _{STG}	-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

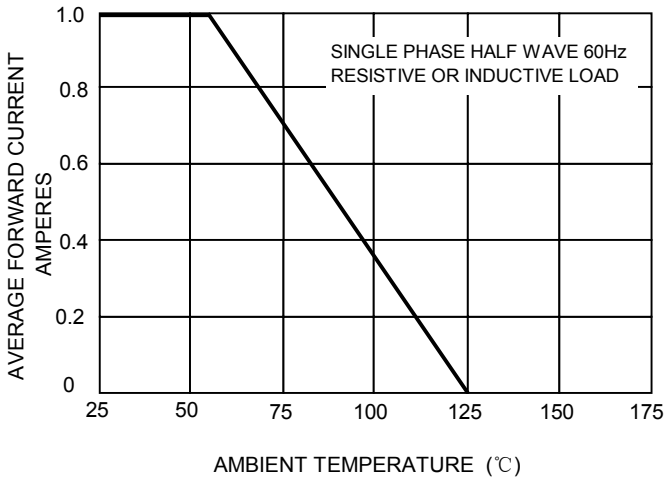


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

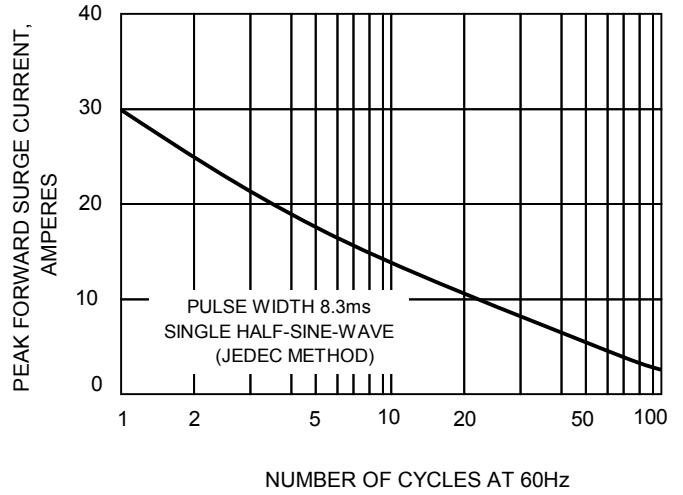


FIG.3 – TYPICAL JUNCTION CAPACITANCE

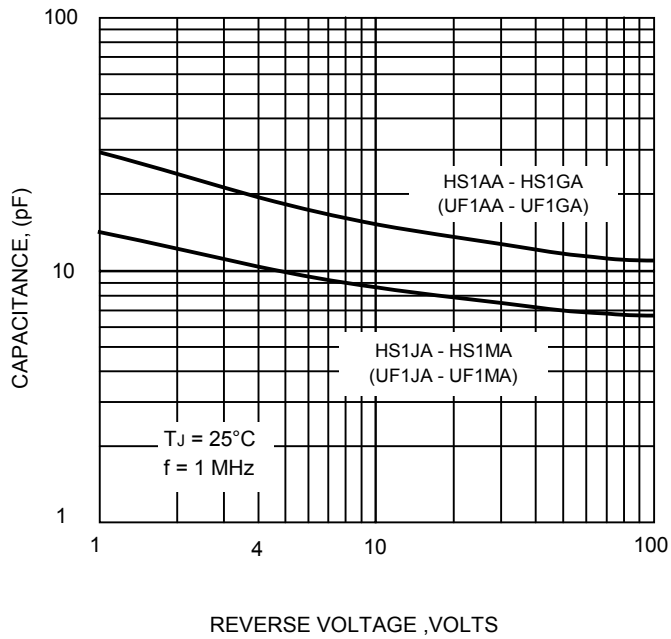


FIG.4-TYPICAL FORWARD CHARACTERISTICS

