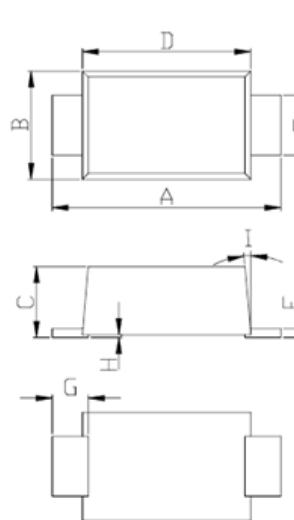


**SURFACE MOUNT
GLASS PASSIVATED RECTIFIER**
**REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 2.0 Amperes**
FEATURES

- For surface mounted applications.
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- Halogen and Antimony Free. "Green" Device (Note 3)

MECHANICAL DATA

- Package: JEDEC DO-219AA
- Package Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free"
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Component in accordance to RoHs 2002/95/EC
- Marking code: S2M
- Weight: 16.3 mg (Approximate)


F1-A

F1-A			
DIM.	MIN.	TYP.	MAX.
A	3.50	3.80	3.90
B	1.70	1.90	2.00
C	0.81	1.18	1.20
D	2.70	2.80	2.90
E	0.80	1.00	1.35
F	0.05	0.15	0.30
G	0.35	0.60	0.85
H	0.03	0.07	0.10
I	0°	5°	8°

All dimension in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	1000	V
Average rectified output current @T _C =100°C	I _(AV)	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	I _{FSM}	50	A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load.	I _{FSM}	100	A
Operating junction temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX	UNIT
Forward voltage	I _F =1.5A	V _F	--	--	1.1	V
			--	0.86	--	
Leakage current	V _R = 1000V	I _R	--	--	5.0	uA
			--	--	500	
Typical junction capacitance (Note 4)		C _T	--	10	--	pF

THERMAL CHARACTERISTICS

THERMAL CHARACTERISTIC	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 5)	R _{thJC} R _{thJL} R _{thJA}	25 20 90	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP.	UNIT
Reverse recovery time	I _F = 0.5A, I _{rr} = 0.25A, I _R = 1.0A	t _{rr}	2	us

Note:

REV. 5, Nov-2021, KSAP02

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.

 2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.

3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

4. Measured at 1.0MHz and applied voltage of 4.0VDC.

 5. Thermal resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft²_20 mm x 20 mm copper pad.

FIG.1- FORWARD CURRENT DERATING CURVE

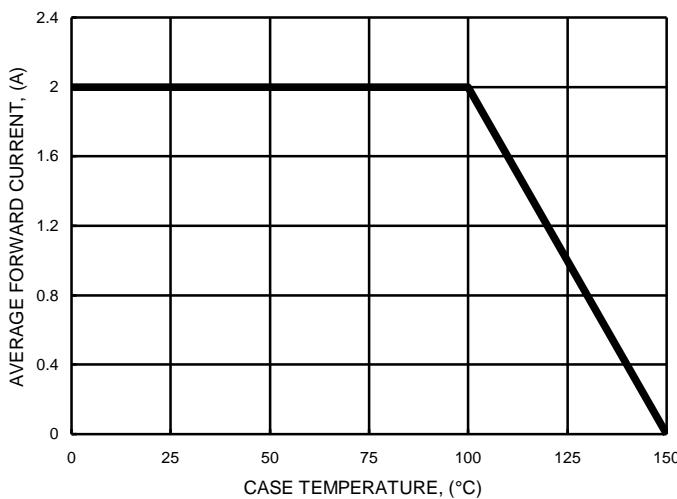


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

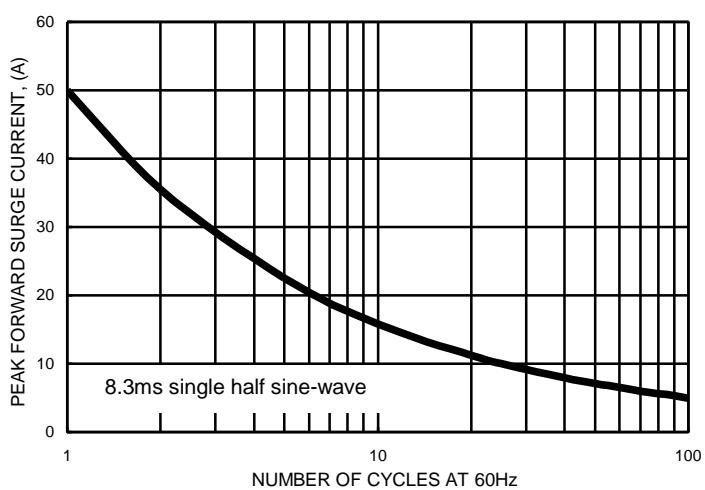


FIG.3- TYPICAL FORWARD CHARACTERISTICS

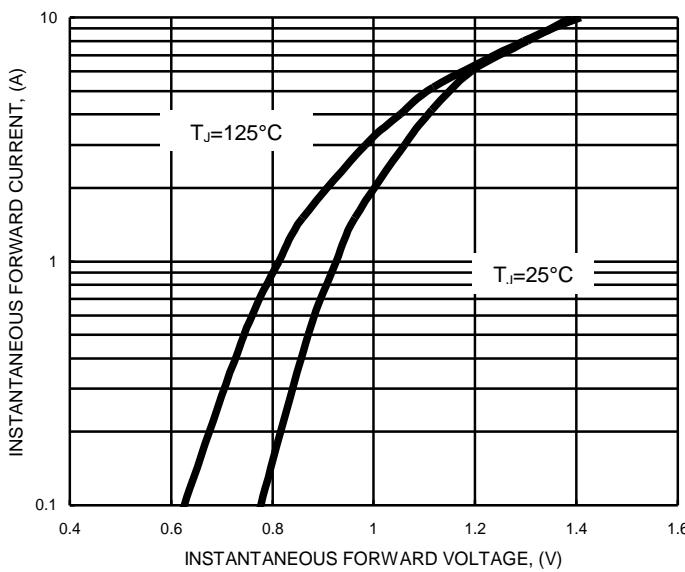


FIG.4- TYPICAL JUNCTION CAPACITANCE

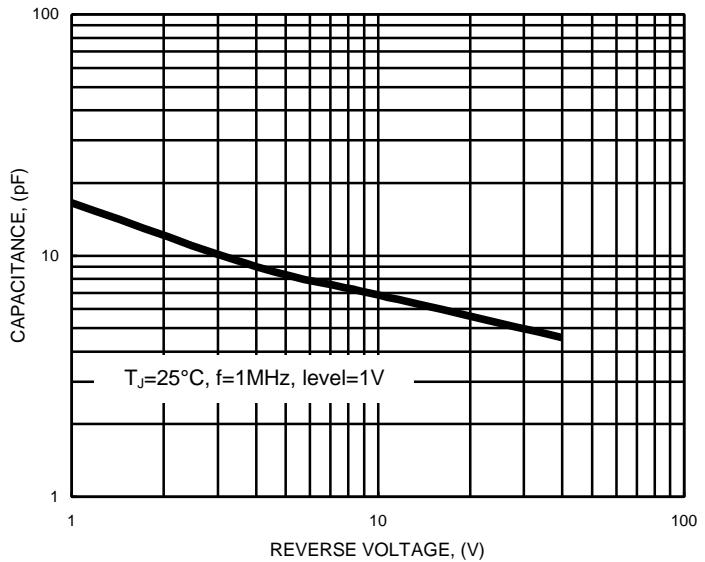
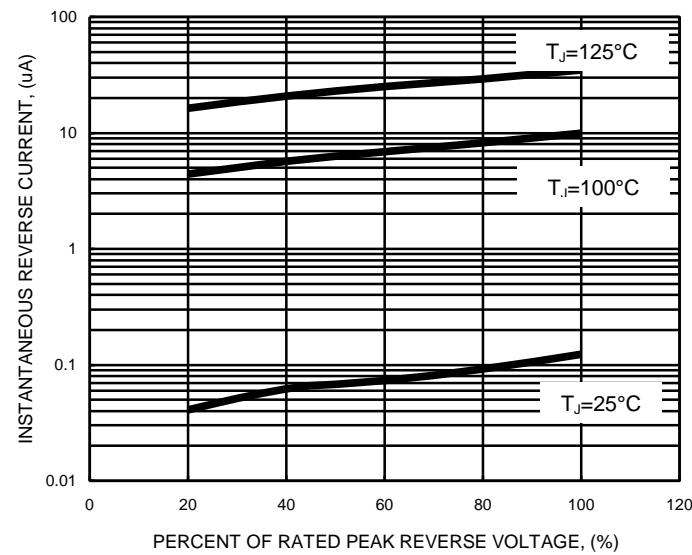
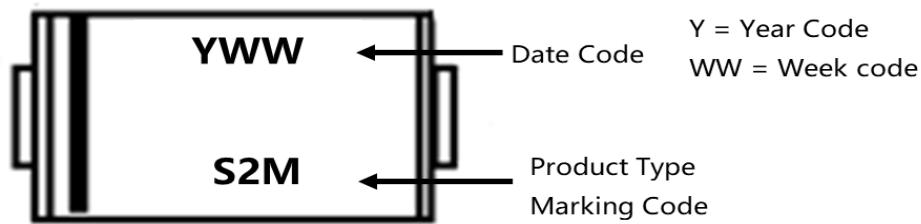


FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
FS2ME_HF	F1-A	10000	Tape & Reel
FS2ME_HF-07	F1-A	2500	Tape & Reel

Marking Information :

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