

S2JA-S2MA(LS)

SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

FEATURES

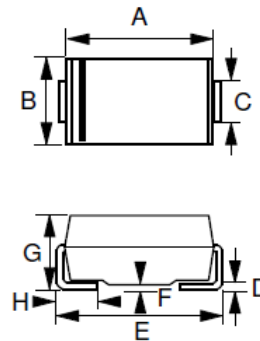
- Glass passivated chip
- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: Molded plastic
- Polarity: Indicated by cathode band
- Terminal: solder plated copper
- Weight: 0.064 grams

REVERSE VOLTAGE – 600 to 1000 Volts FORWARD CURRENT – 1.5 Ampere

SMA



SMA		
DIM	MIN	MAX
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	2.01	2.40
H	0.76	1.52

All dimension in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	S2JA	S2MA	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	1000	V
Maximum RMS Voltage	V_{RMS}	420	700	V
Maximum DC Blocking Voltage	V_{DC}	600	1000	V
Maximum Average Forward Rectified Current @ $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.5		A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	50		A
Maximum Forward Voltage at 1.5A DC	V_F	1.15		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=125^\circ\text{C}$	I_R	5.0 125		μA
Maximum Reverse Recovery Time (Note 4)	t_{rr}	1500		ns
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10.5		A^2S
Typical Junction Capacitance (Note 5)	C_T	20		pF
Typical Thermal Resistance (Note 6)	R_{thJL}	20		$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to + 150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150		$^\circ\text{C}$

Note :

REV-7, Nov-2021, KSDA02

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. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal Resistance junction to Lead,

RATING AND CHARACTERISTIC CURVES
S2JA-S2MA(LS)

FIG.1 - FORWARD CURRENT DERATING CURVE

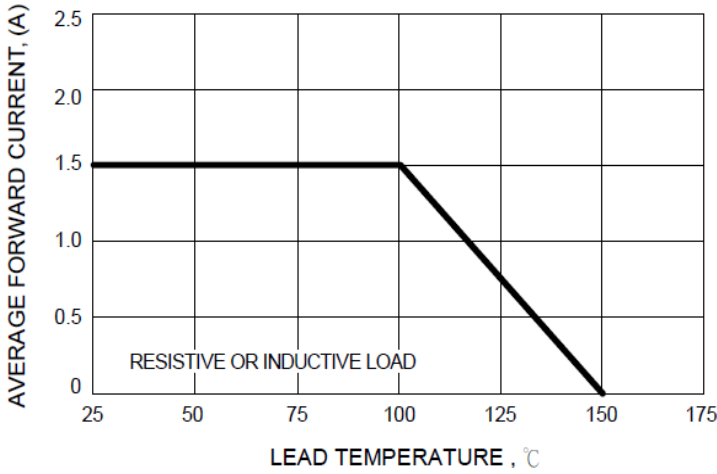


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

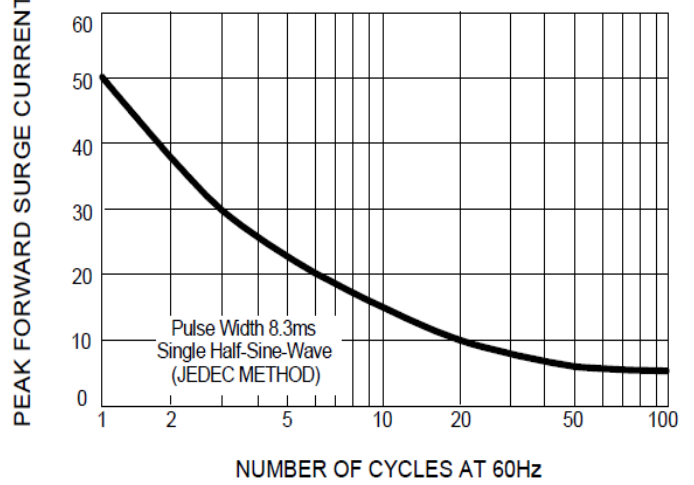


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

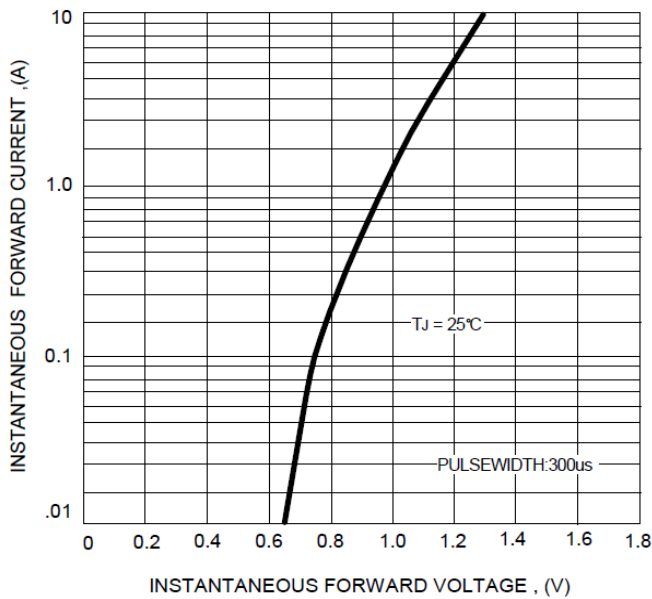
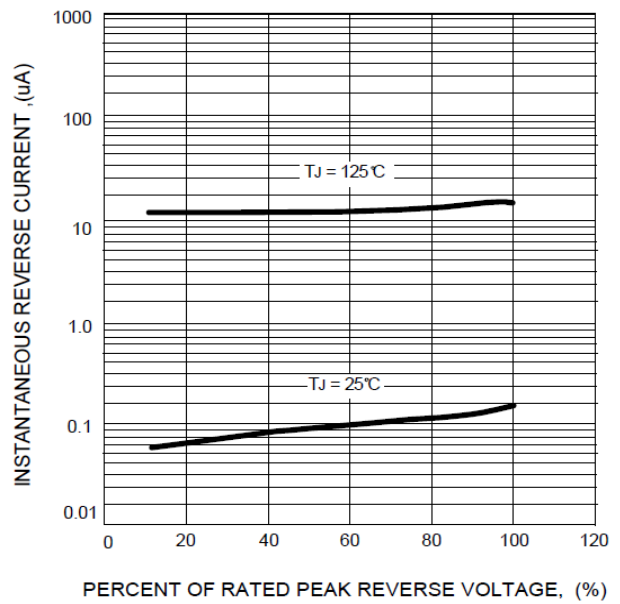


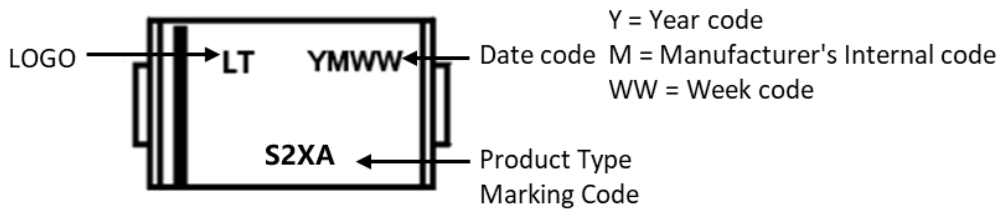
FIG.4 - TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
S2JA_HF	SMA	5000pcs	Reel
S2MA_HF	SMA	5000pcs	Reel

Marking Information :



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