

S2JHA-S2MHA(LS)

**SURFACE MOUNT
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 2.0 Ampere**

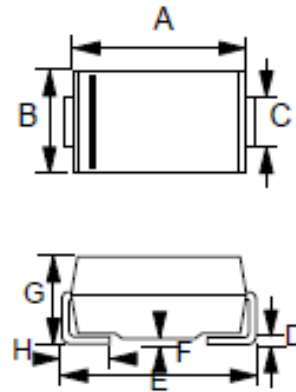
FEATURES

- Glass passivated chip
- 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: Molded plastic
- Polarity: Indicated by cathode band
- Terminals: Solder plated copper
- Weight: 0.064 grams

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	S2JHA	S2KHA	S2MHA	UNIT
Device marking code	---	S2JHA	S2KHA	S2MHA	---
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	1000	V
Maximum RMS voltage	V_{RMS}	420	560	700	V
Maximum DC blocking voltage	V_{DC}	600	800	1000	V
Average rectified output current @ $T_L = 90^\circ\text{C}$	$I_{(AV)}$	2.0			A
Peak forward surge current 8.3ms single half sine-wave	I_{FSM}	50			A
Operating junction temperature range	T_J	-55 to +150			°C
Storage temperature range	T_{STG}	-55 to +150			°C
PARAMETER	TEST CONDITIONS	SYMBOL	MAX		UNIT
Forward voltage (4)	$I_F = 2.0\text{A}$ $T_J = 25^\circ\text{C}$	V_F	1.15		V
Leakage current (4)	$V_R = V_{DC}$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	I_R	5 125		uA
THERMAL CHARACTERISTIC	SYMBOL	TYP.		UNIT	
Typical junction capacitance (5)	C_T	10		pF	
Typical thermal resistance _ Junction to Case (6)	R_{thJC}	21		°C/W	
Typical thermal resistance _ Junction to Ambient (6)	R_{thJA}	58		°C/W	
Typical thermal resistance _ Junction to Lead (6)	R_{thJL}	33		°C/W	

Note:

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. 300us Pulse width, 2% Duty cycle.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on 0.75t glass-epoxy substrate with 10mmx10mm copper pad. R_{thJL} is measured at the lead of cathode band. R_{thJC} is measured at the top center of body.

RATING AND CHARACTERISTIC CURVES
S2JHA-S2MHA(LS)

FIG.1- FORWARD CURRENT DERATING CURVE

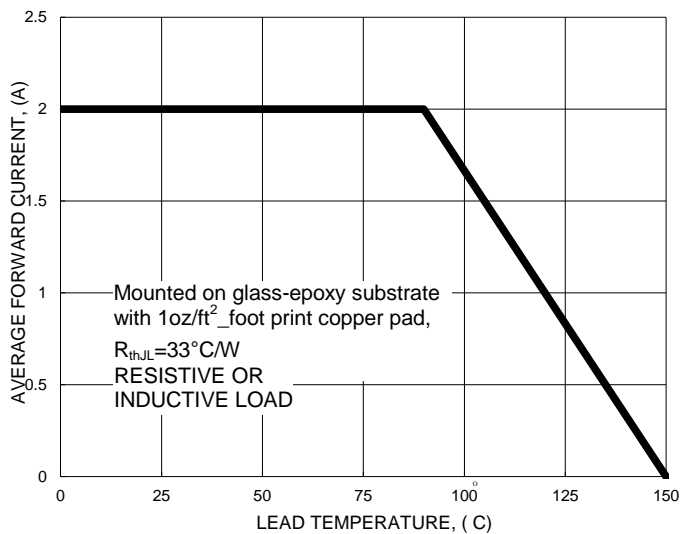


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

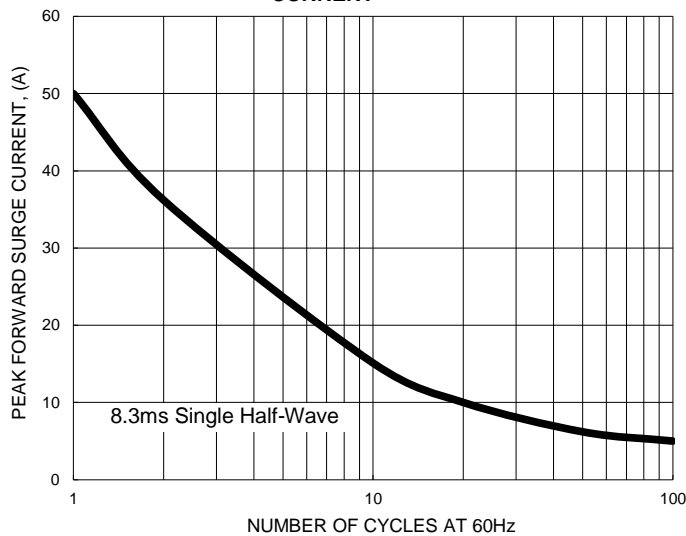


FIG.3- TYPICAL FORWARD CHARACTERISTICS

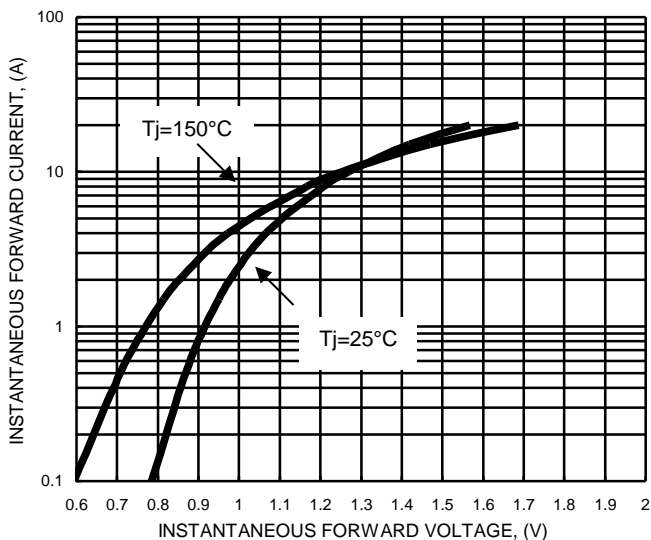


FIG.4- TYPICAL JUNCTION CAPACITANCE

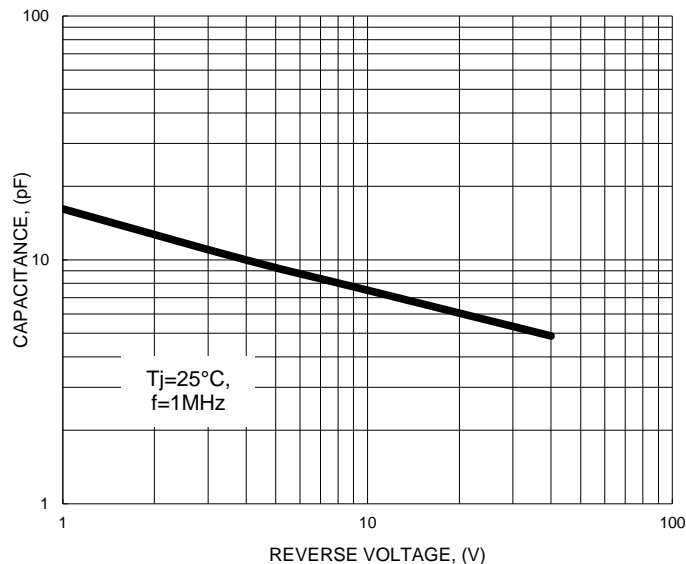
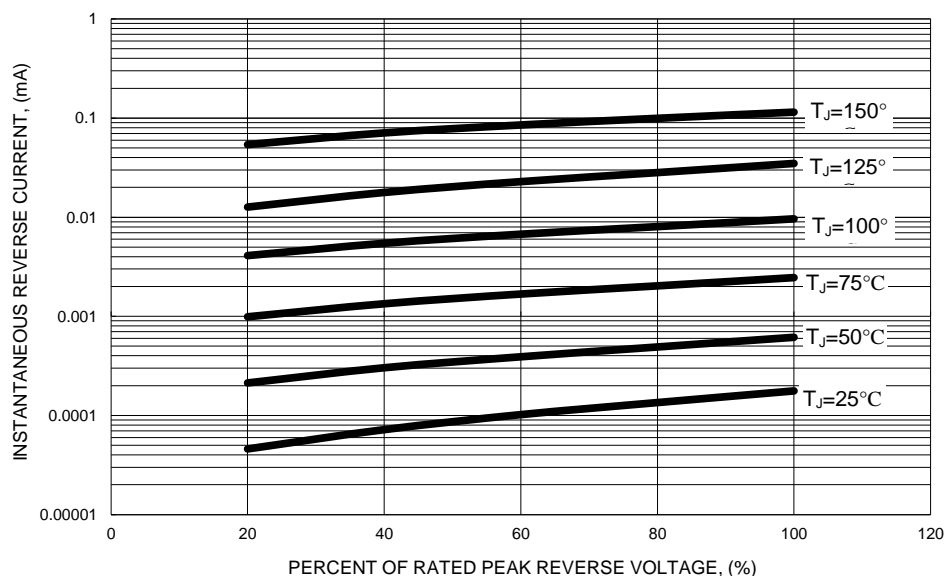


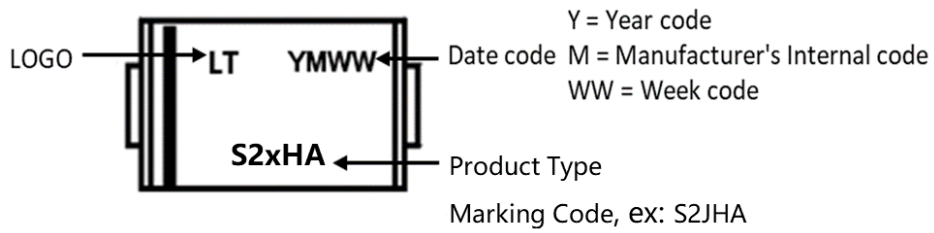
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
S2JHA_HF	SMA	5000pcs	Tape & Reel
S2KHA_HF	SMA	5000pcs	Tape & Reel
S2MHA_HF	SMA	5000pcs	Tape & Reel

Marking Information:



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