S8JC-S8MC(LS)

SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE – 600 to 1000 Volts FORWARD CURRENT – 8.0 Ampere

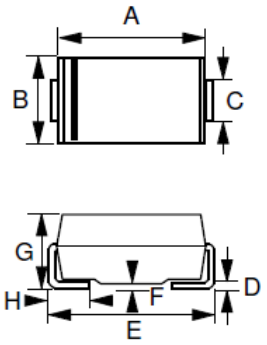
FEATURES

- 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
- Package Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity : Color band denotes cathode
- Weight : 0.007 ounces, 0.21 grams

SMC



SMC		
DIM	MIN	MAX
A	6.60	7.11
B	5.59	6.22
C	2.92	3.18
D	0.15	0.31
E	7.75	8.13
F	0.05	0.20
G	2.01	2.50
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	S8JC	S8KC	S8MC	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	V
Maximum Average Forward Rectified Current @T_L=75°C	$I_{(AV)}$	8.0			A
Peak forward surge current single half sine-wave superimposed on rated load. (JEDEC METHOD) @ 8.3ms	I_{FSM}	200			A
Peak forward surge current single half sine-wave superimposed on rated load. (JEDEC METHOD) @ 1.0ms	I_{FSM}	450			A
Typical Junction Capacitance (Note 4)	C_T	45			pF
Operation and storage temperature range	T_J ,T_{STG}	-55 to + 150			°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	MAX.	UNIT
Forward voltage	I_F=8.0A	T_J=25°C	V_F	0.985	V
Leakage current	V_R rated	T_J=25°C T_J=125°C	I_R	10 250	uA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 5)	R_{thJA}	15	°C/W
Typical thermal resistance	R_{thJC} R_{thJL} R_{thJA}	6 8 60	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	TYP.	UNIT
Reverse recovery time	I_F= 0.5A, I_{rr}= 0.25A, I_R=1.0A	t_{rr}	2700	ns

Notes:

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 reverse voltage of 4.0V DC.
5. Thermal resistance junction to Ambient. in accordance with JESD-51. Unit mounted on 100mm*100mm*1.7mm copper pad, heatsink.

RATING AND CHARACTERISTIC CURVES
S8JC-S8MC

FIG.1- FORWARD CURRENT DERATING CURVE

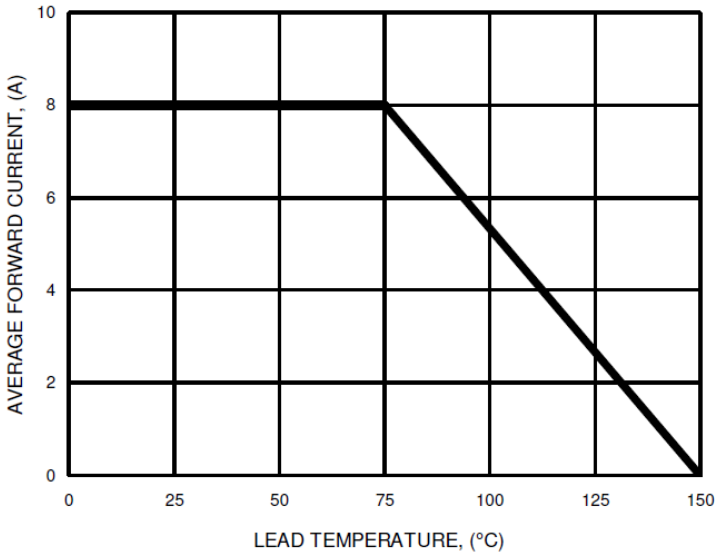


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

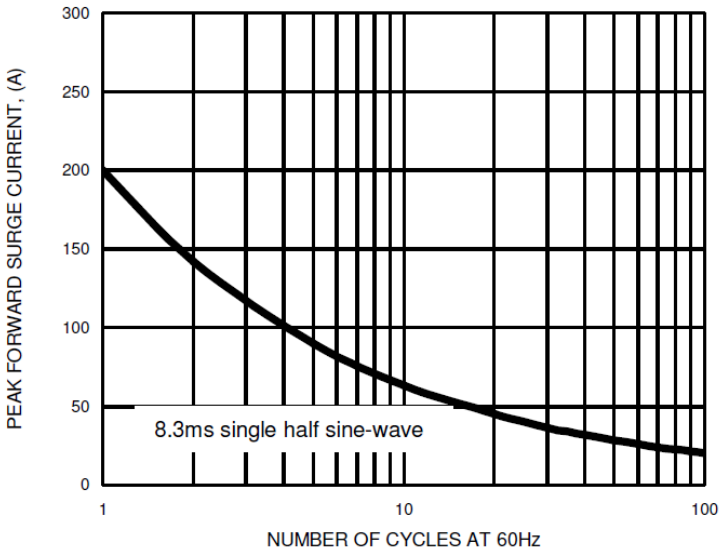


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

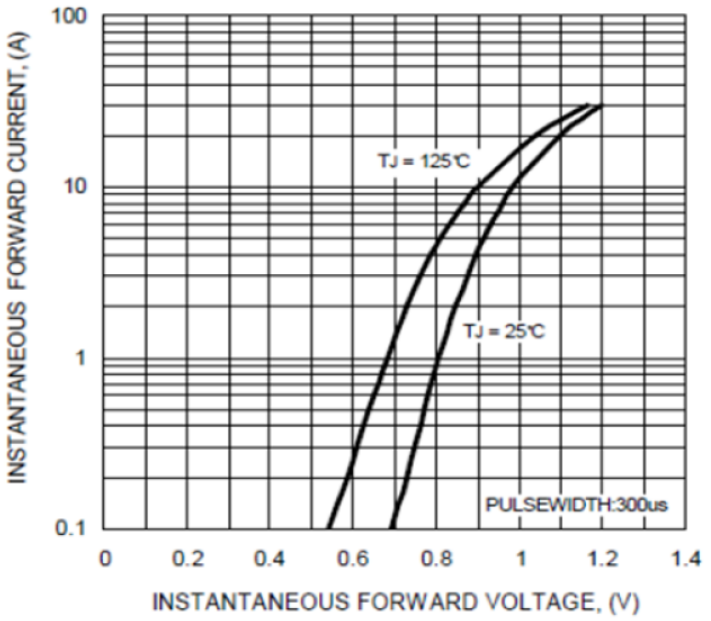
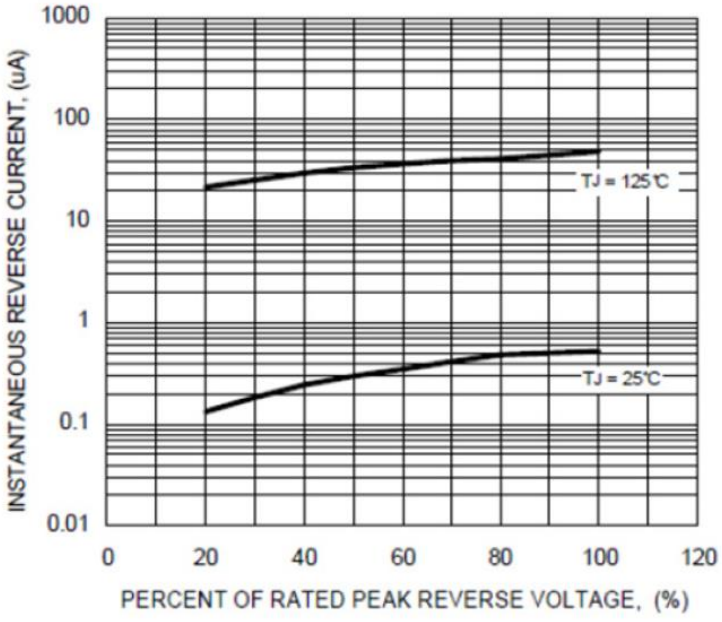


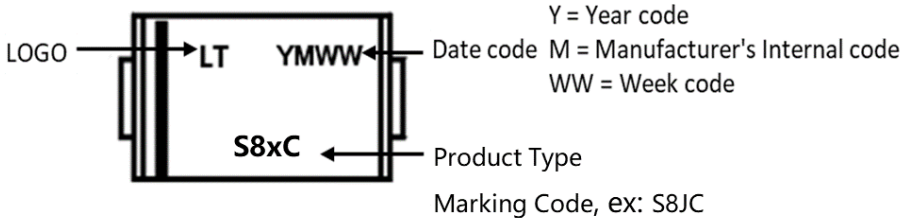
FIG.4 - TYPICAL REVERSE CHARACTERISTICS



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
S8JC_HF	SMC	3000pcs	Tape & Reel
S8KC_HF	SMC	3000pcs	Tape & Reel
S8MC_HF	SMC	3000pcs	Tape & Reel

Marking Information:



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