

**SURFACE MOUNT
GLASS PASSIVATED RECTIFIERS**

**REVERSE VOLTAGE –400 to 1000 Volts
FORWARD CURRENT – 8.0 Amperes**

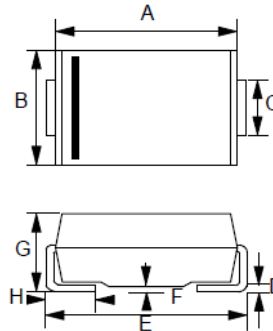
FEATURES

- 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

MECHANICAL DATA

- Case: Molded plastic
- Case 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.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	S8GC	S8JC	S8KC	S8MC	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	400	600	800	1000	V
Maximum average forward rectified current @ $T_L=75^\circ\text{C}$	$I_{(AV)}$	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 (Note1)	C_J	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	$I_F=8.0A$	$T_J=25^\circ\text{C}$	V_F	0.985	V
Leakage current	VR rated	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	10 250	uA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note2)	R_{thJA}	15	°C/W
Typical thermal resistance	R_{thJC}	6	°C/W
	R_{thJL}	8	
	R_{thJA}	60	

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

Note :

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance junction to Ambient. in accordance with JESD-51. Unit mounted on 100mm*100mm*1.7mm copper pad, heatsink

**RATING AND CHARACTERISTIC CURVES
S8GC thru S8MC**



FIG.1- FORWARD CURRENT DERATING CURVE

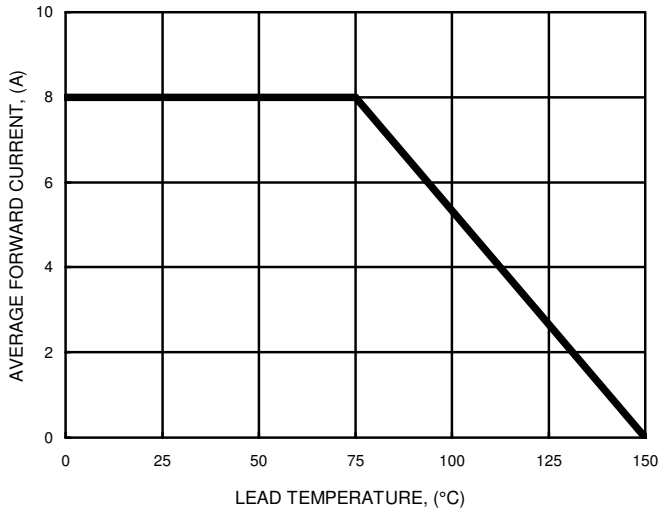


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

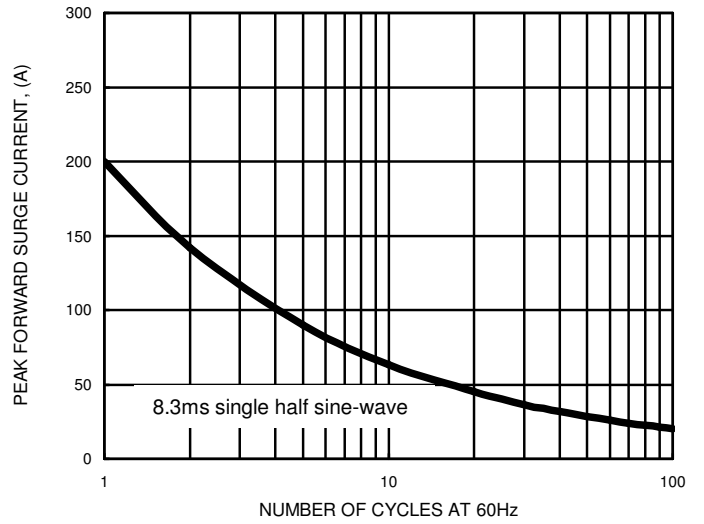


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

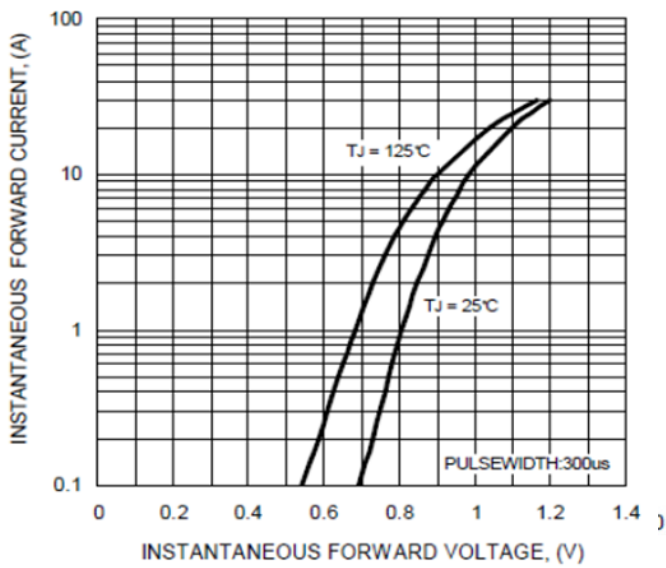
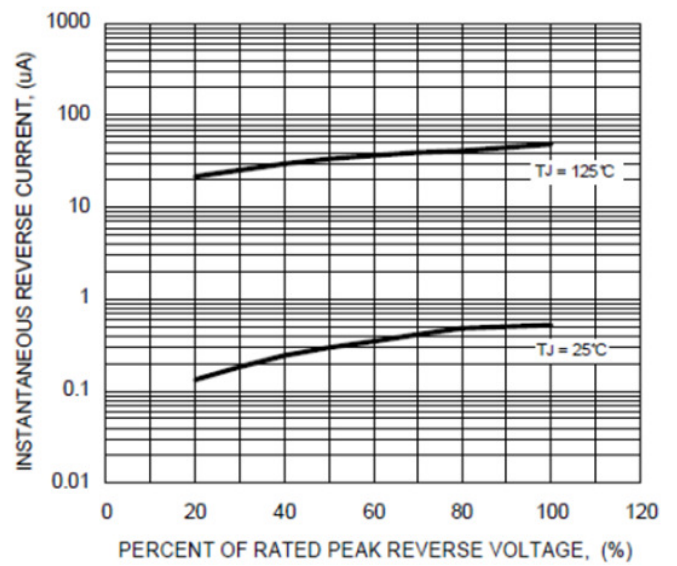


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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