

**SURFACE MOUNT
GLASS PASSIVATED RECTIFIERS**

**REVERSE VOLTAGE –50 to 1000 Volts
FORWARD CURRENT – 1.5 Amperes**

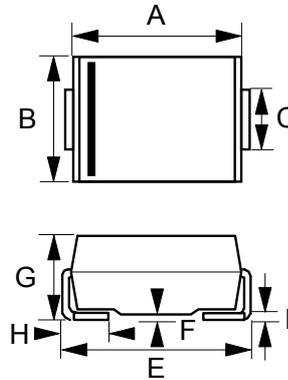
FEATURES

- Glass passivated chip
- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High current capability

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 : 0.003 ounces, 0.093 grams

SMB



SMB		
DIM.	MIN.	MAX
A	4.06	4.57
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.21	5.59
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	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.5							A
Peak forward surge current single half sine-wave superimposed on rated load. (JDEC METHOD)	I_{FSM}	50 100							A
		@ 8.3ms @ 1ms							
I^2t rating for fusing ($1\text{ms} \leq t \leq 8.3\text{ms}$)	I^2t	10.4							A^2S
Typical junction capacitance (Note1)	C_J	20							pF
Operation and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	MAX.	UNIT
Forward voltage	$I_F=1.5\text{A}$	$T_J=25^\circ\text{C}$	V_F	1.15	V
Leakage current	VR rated	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	5.0 125	μA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note2)	R_{thJL}	20	$^\circ\text{C/W}$

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	TYP.	UNIT
Reverse recovery time	$I_F=0.5\text{A}, I_{rr}=0.25\text{A}, I_R=1.0\text{A}$	T_{RR}	1500	ns

Note :

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance junction to lead.

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**RATING AND CHARACTERISTIC CURVES
S2A thru S2M**



FIG.1- FORWARD CURRENT DERATING CURVE

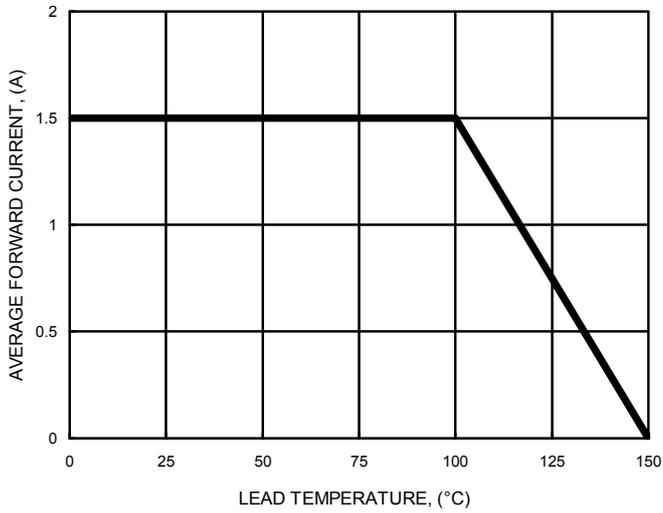


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

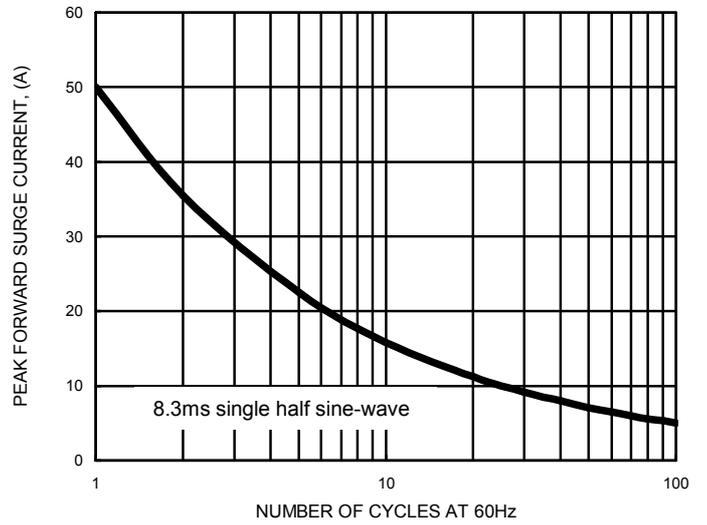


FIG.3- TYPICAL FORWARD CHARACTERISTICS

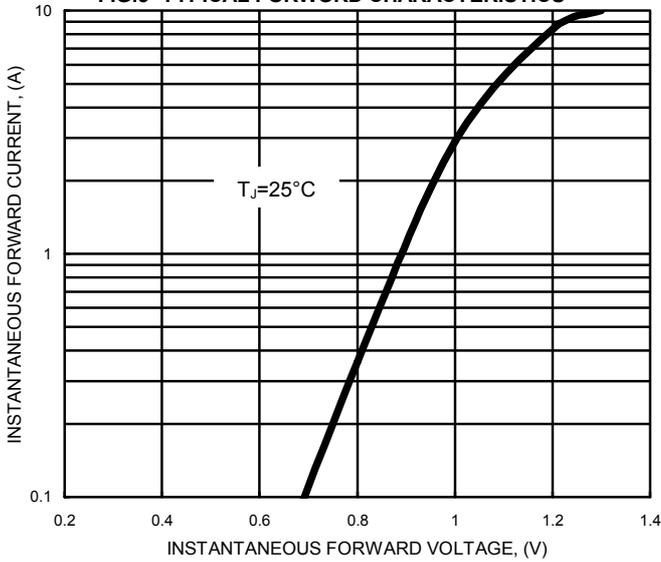
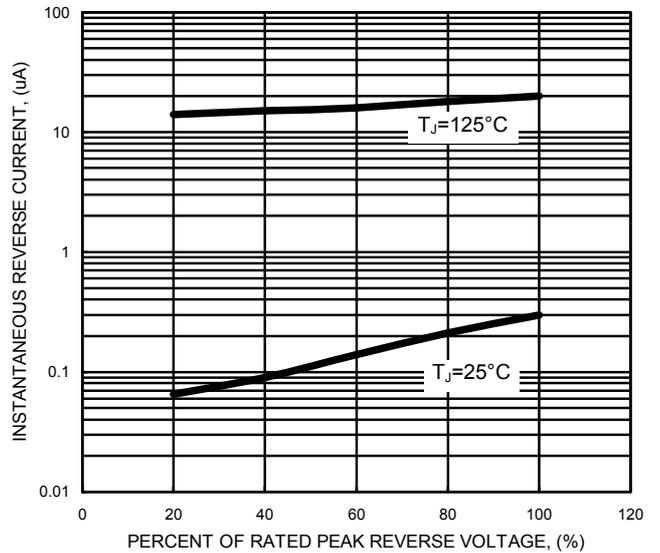


FIG.4- TYPICAL REVERSE CHARACTERISTICS



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