S5JB thru S5MB

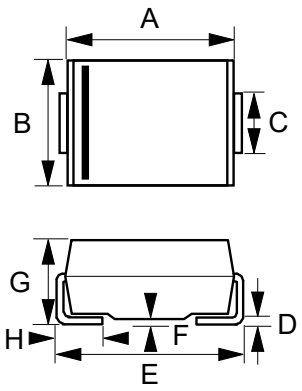
SURFACE MOUNT
GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE 600 – 1000 Volts
FORWARD CURRENT – 5.0 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 : 0.093 grams (Approximated)

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	S5JB	S5KB	S5MB	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=85°C	$I_{(AV)}$	5.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @T_J=25°C @T_J=125°C	I_{FSM}	150 120			A
Peak forward surge current 1ms single half sine-wave superimposed on rated load @T_J=25°C @T_J=125°C	I_{FSM}	300 240			A
I^2t rating for fusing (t = 8.3ms)	I^2t	93			A^2S
I^2t rating for fusing (t = 1.0ms)	I^2t	45			A^2S
Typical junction capacitance (Note1)	C_J	28			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= 5.0A	T_J=25°C	V_F	1.15	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 (Note2)	$RthJ_A$ $RthJ_L$ $RthJ_C$	60 8 10	°C/W

Note :

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

Rev-0, Feb.-2019, KSDC06

RATING AND CHARACTERISTIC CURVES
S5JB thru S5MB

FIG.1- FORWARD CURRENT DERATING CURVE

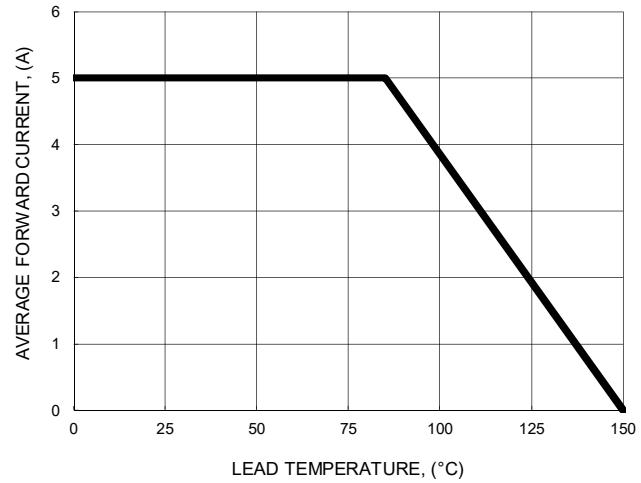


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

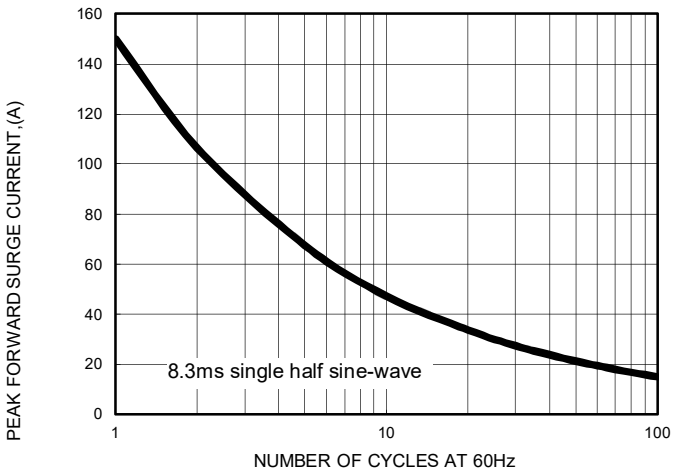


FIG.3- TYPICAL FORWORD CHARACTERISTICS

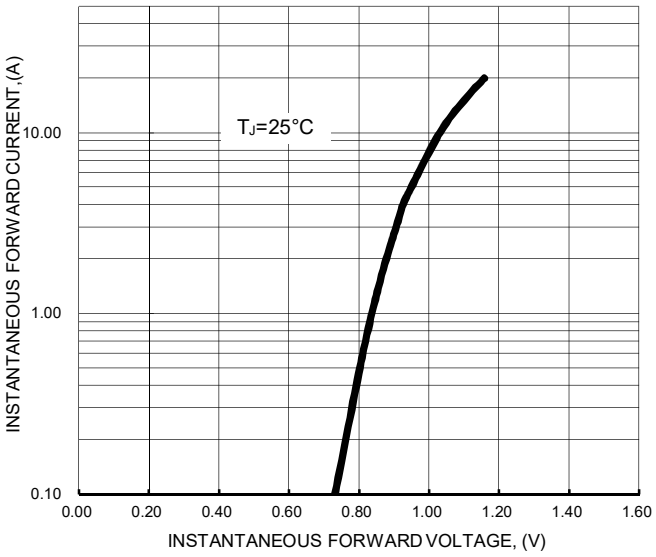
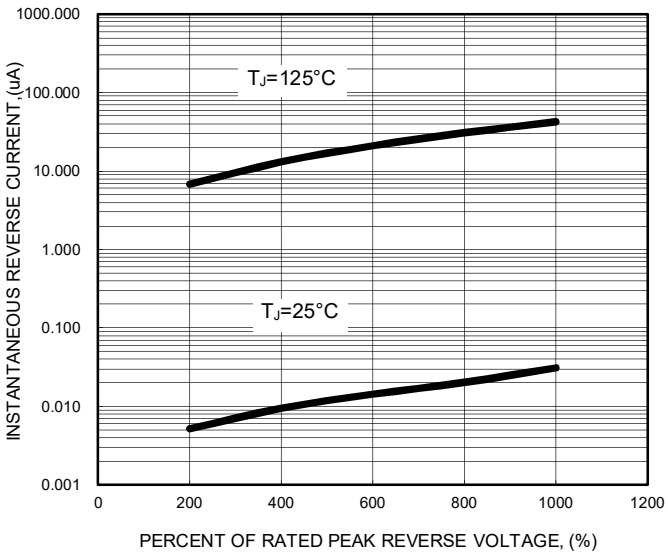


FIG.4- TYPICAL REVERSE CHARACTERISTICS



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