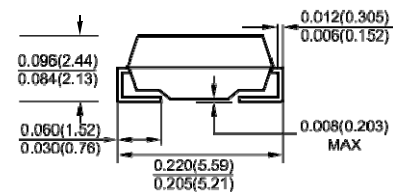
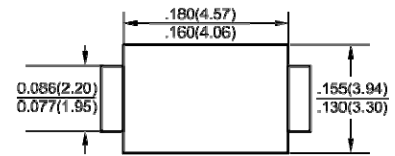



Features

- ◇ Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- ◇ Guard ring for overvoltage protection
- ◇ High current capability, low forward voltage drop
- ◇ Low power loss, high efficiency
- ◇ High surge capability

Mechanical Data

- ◇ Case: Molded plastic SMB
- ◇ Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- ◇ Polarity: Color band denotes cathode end
- ◇ Mounting Position: Any
- ◇ Weight: 0.093 gram
- ◇ Lead Free: For RoHS/Lead Free Version
- ◇ Marking: LGE SS5XX

SMB


Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate by 20%.

Type Number	Symbol	SS	SS	SS	SS	SS	SS5	SS5	SS5	UNITS
		52	54	55	56	58	10	15	20	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	50	60	80	100	150	200	V
Average Rectified Output Current (Note 1) @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	5.0								A
Peak forward surge current: 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175								A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	127								A ² S
Forward Voltage @ $I_F=5.0\text{A}$	V_{FM}	0.45	0.55	0.7		0.85		0.85		V
Peak Reverse Current @ $T_A=25^\circ\text{C}$	I_R	0.5				0.5				Ma
At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	20				10				
Typical Junction Capacitance (Note 2)	C_J	500				350				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	55								°C/W
Operating Temperature Range	T_J	-55 to +150				-55 to +175				°C
Storage Temperature Range	T_{STG}	-55 to +150				-55 to +175				°C

Note: 1. Pulse test: 300µS pulse width, 1% duty cycle.

 2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm²) copper pad areas.



Fig.1 Forward Current Derating Curve

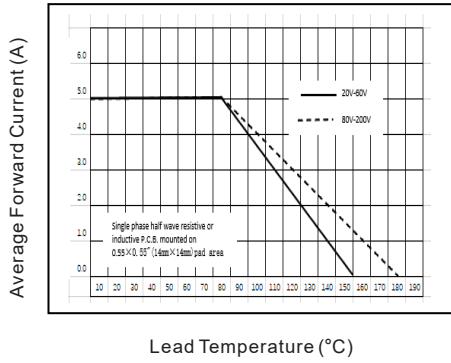


Fig.2 Typical Reverse Characteristics

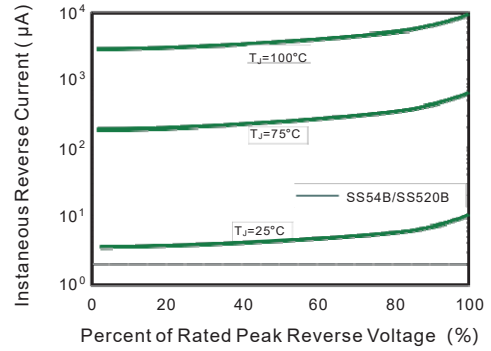


Fig.3 Typical Forward Characteristic

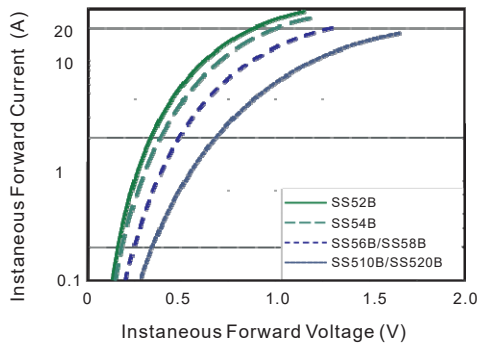


Fig.4 Typical Junction Capacitance

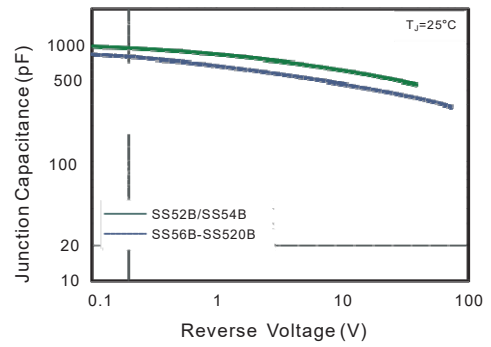


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

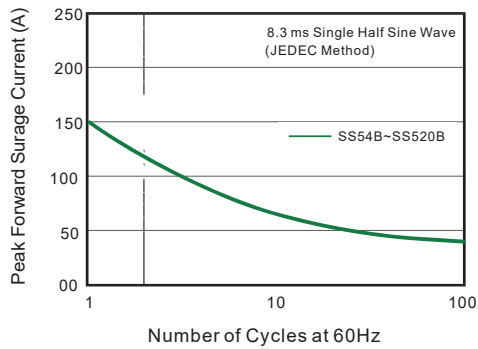


Fig.6- Typical Transient Thermal Impedance

