

FEATURES

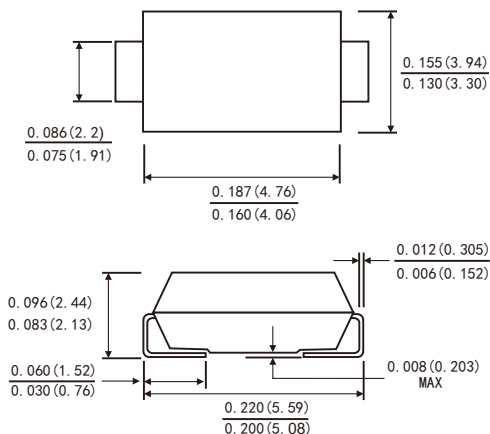
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Ideal for automated placement
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- Meets MSL level 1,per J-STD-020,LF maximum peak of 260°C
Component in accordance to RoHS 2011/65/EU



RoHS
COMPLIANT



SMB(DO-214AA)



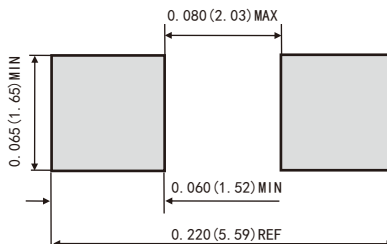
MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003ounce, 0.093 gram

TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications

Suggested PAD Layout



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	100	V
Maximum average forward rectified current (see fig.1)	I _{F(AV)}	3.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I _{FSM}	80	A
Operating junction temperature range	T _J	-55 to+150	°C
Storage temperature range	T _{stg}	-55 to+150	°C

RATINGS AND CHARACTERISTIC OF SS310LB

ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	I _F =3.0A	T _A =25°C	V _F ¹⁾	0.62	0.65	V
		T _A =100°C		0.59	–	
		T _A =125°C		0.57	–	
Reverse current	V _R =100V	T _A =25°C	I _R ²⁾	20	50	μA
		T _A =100°C		2	5	mA
		T _A =125°C		10	20	
Typical junction capacitance	4V, 1MHz		C _J	240		pF

Notes: 1.Pulse test: 300 μs pulse width, 1% duty cycle

2.Pulse test: pulse width ≤ 40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SMB	Unit
Typical thermal resistance ³⁾	R _{θJA}	70.0	°C/W
	R _{θJL}	25.0	

3. Unit mounted on PC board with 5.0mm×5.0mm (0.013mm thick) copper pads as heat sink

AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)
SS310LB-SMB	T/R	Φ300	3000	340×340×40	2	370×370×370	8

RATINGS AND CHARACTERISTIC OF SS310LB

FIG.1-FORWARD CURRENT DERATING CURVE

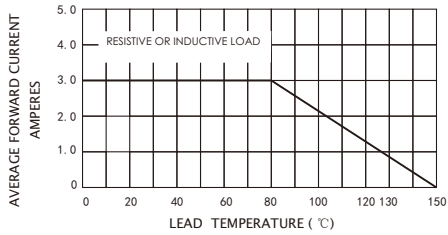


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

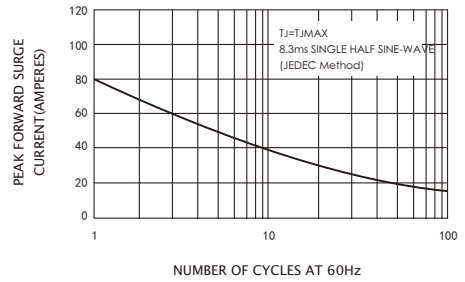


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

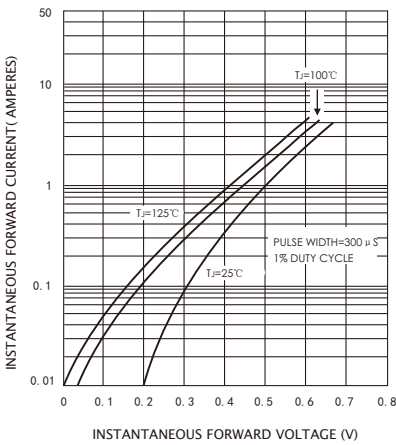


FIG.4-TYPICAL REVERSE CHARACTERISTICS

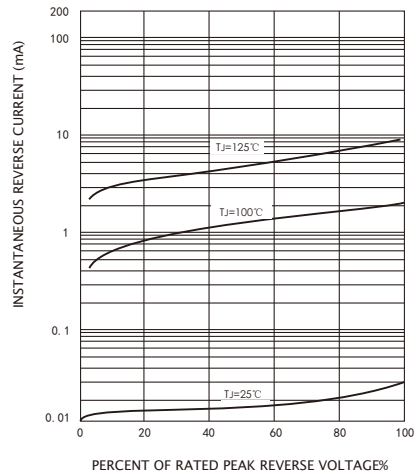


FIG.5-TYPICAL JUNCTION CAPACITANCE

