

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



MECHANICAL DATA

- Case:TO-277 molded plastic body
- Terminal:Plated leads,solderable per MIL-STD-750,method 2026
- Mounting Position:Any
- Weight:0.092 grams(approx)

TYPICAL APPLICATIONS

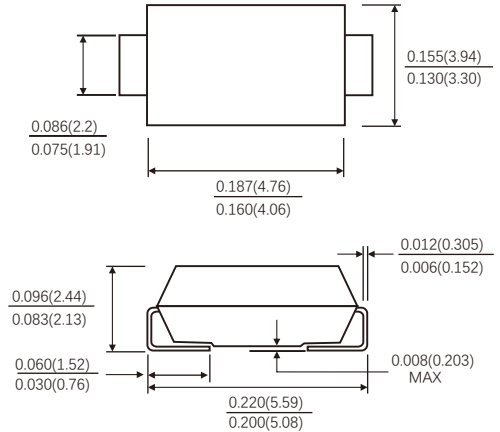
For use in low voltage,high frequency inverter,DC/DC converters, free wheeling,and polarity protection applications

MAXIMUM RATINGS

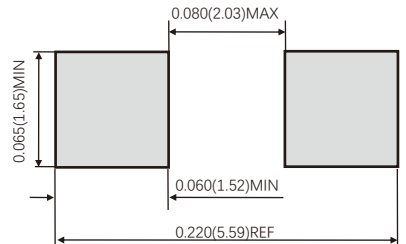
(Ratings at 25°C ambient temperature unless otherwise)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum average forward rectified current	$I_{F(AV)}$	10.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	150	A
Operating junction temperature range	T_j	-55 to +150	°C
Storage temperature range	T_{stg}	-55 to +150	°C

SMB(DO-214AA)



Suggested PAD Layout



Dimensions in inches and (millimeters)

RATINGS AND CHARACTERISTICS OF SS1010LB

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	I _F =10.0A	T _A =25°C	V _F ¹⁾	0.63	0.70	V
		T _A =100°C		0.61	-	
		T _A =125°C		0.59	-	
	I _F =5.0A	T _A =25°C		0.52	-	
		T _A =100°C		0.49	-	
		T _A =125°C		0.47	-	
Reverse current	V _R =100V	T _A =25°C	I _R ²⁾	-	100	μA
		T _A =100°C		-	10	mA
		T _A =125°C		-	30	
Typical junction capacitance	4V,1MHz		C _j	570		pF

Notes: 1.Pulse test: 300μs 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}	15.0	

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)
SS1010LB-SMB	T/R	Φ300	3000	340×340×40	2	370×370×370	8

RATINGS AND CHARACTERISTICS OF SS1010LB

FIG.1-FORWARD CURRENT DERATING CURVE

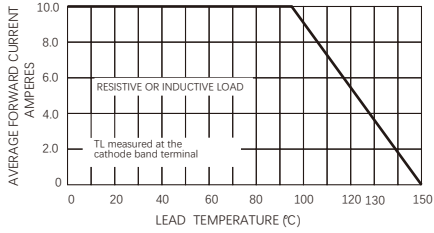


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

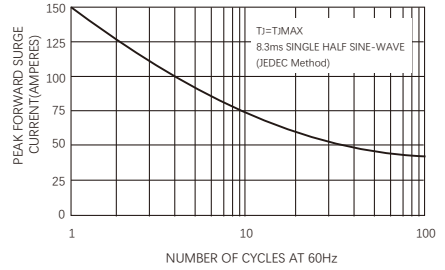


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

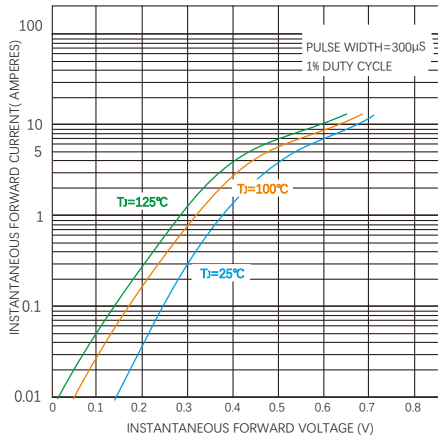


FIG.4-TYPICAL REVERSE CHARACTERISTICS

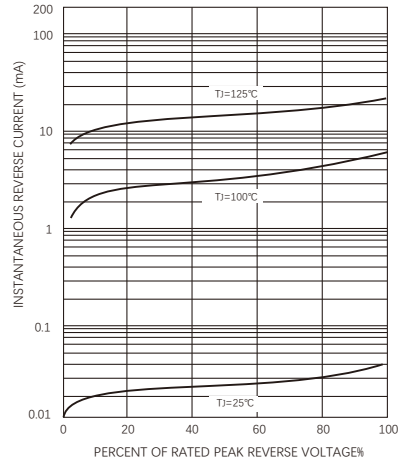
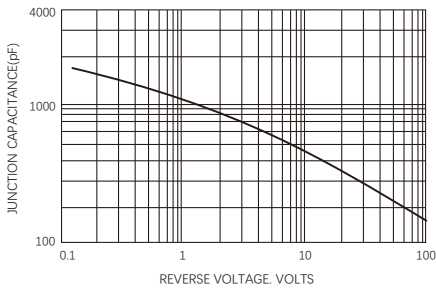


FIG.5-TYPICAL JUNCTION CAPACITANCE



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