

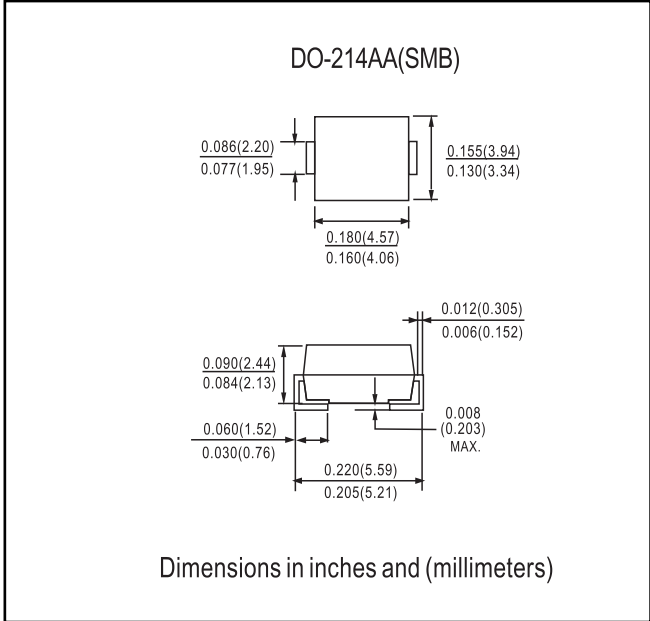


B1100LB

100V 1.0A

FEATURES

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 50A Peak
- Inverters, Free Wheeling, and Polarity Protection Application
- High Temperature Soldering: 260°C/10 Second at Terminal
- Plastic Material: UL Flammability Classification Rating 94V-0



MECHANICAL DATA

- Case: SMB, Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking: B110LB and Date Code
- Weight: 0.093 grams (approx.)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage @ $I_R = 0.5mA$	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectified Output Current @ $T_T = 120^\circ C$ @ $T_T = 100^\circ C$	I_O	1.0 2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load	I_{FSM}	50	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Terminal (Note 4)	$R_{\theta JT}$	22	°C/W
Operating and Storage Temperature Range (Note 5)	T_J, T_{STG}	-65 to +175	°C

Electrical Characteristics

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V_F	-	-	0.75	V	$I_F = 1.0A, T_A = 25^\circ C$
Leakage Current (Note 6)	I_R	-	-	0.5 5.0	mA	$V_R = 100V, T_A = 25^\circ C$ $V_R = 100V, T_A = 100^\circ C$
Total Capacitance	C_T	-	-	100	pF	$V_R = 4V, f = 1MHz$

Notes: 4. Valid provided that terminals are kept at ambient temperature.
 5. The heat generated must be less than the thermal conductivity from Junction-to-Ambient: $dP_D/dT_J < 1/R_{\theta JA}$
 6. Short duration pulse test used to minimize self-heating effect.



RATINGS AND CHARACTERISTIC CURVES

B1100LB

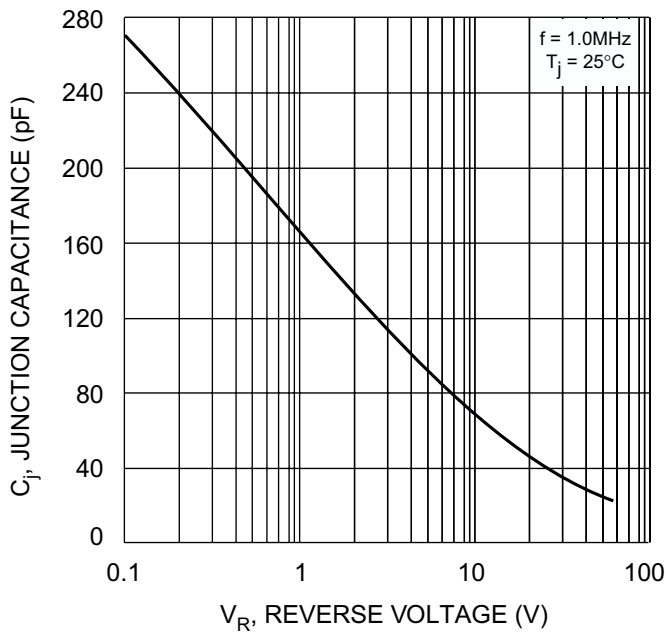


Fig.1 Typical Junction Capacitance

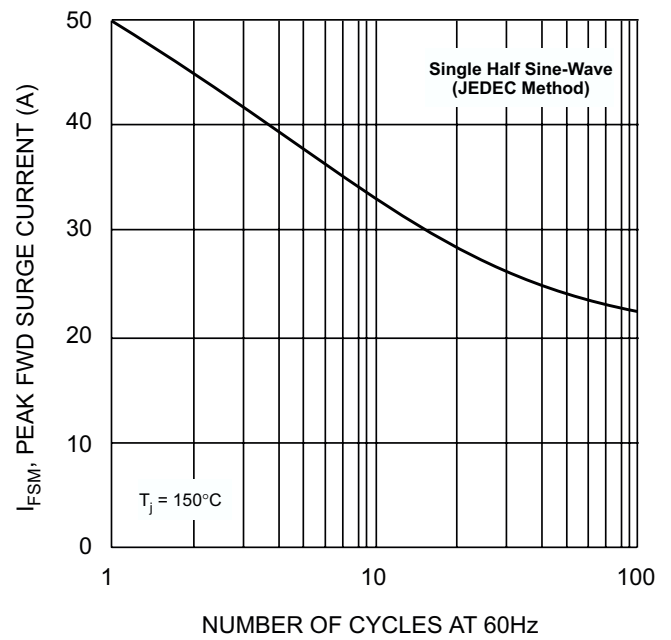


Fig. 2 Max Non-Repetitive Peak Fwd Surge Current

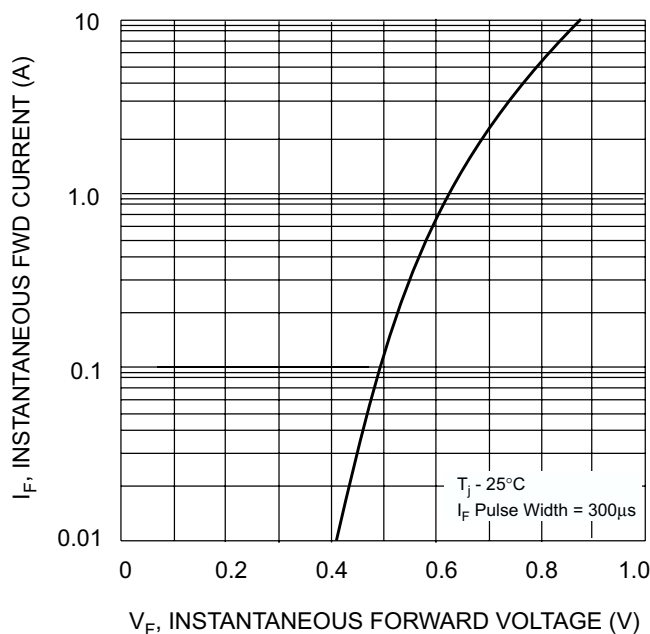


Fig. 3 Typical Forward Characteristics

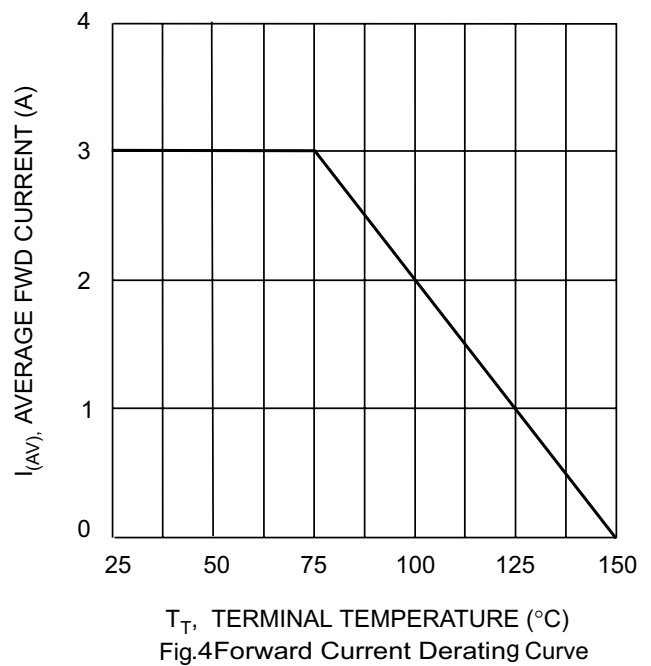


Fig.4 Forward Current Derating Curve