

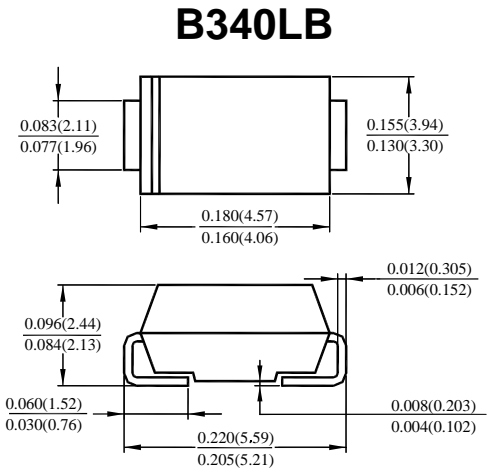
### 3.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

#### Features

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 125A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- **Lead Free Finish/RoHS Compliant (Note 4)**

#### Mechanical Data

- Case: SMB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band



Dimensions in inches and (millimeters)

DO-214AA (SMB)

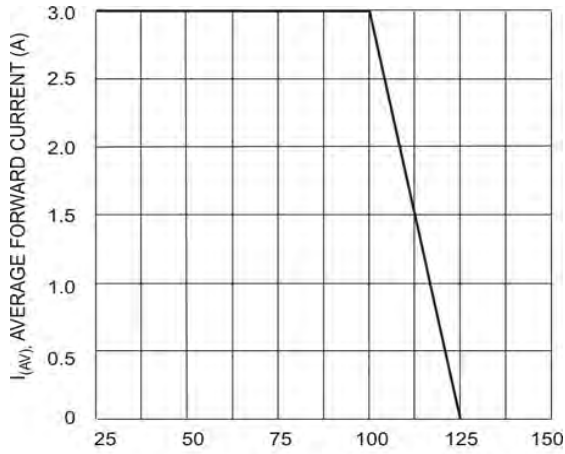
#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

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

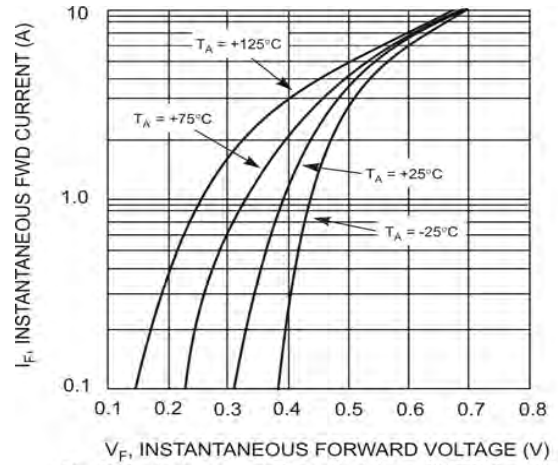
Characteristic	Symbol	B340LB	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	V
Average Rectified Output Current @ T <sub>T</sub> = 100°C	I <sub>O</sub>	3.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	76	A
Forward Voltage (Note 3) @ I <sub>F</sub> = 3.0A	V <sub>FM</sub>	0.45	V
Peak Reverse Current @ T <sub>A</sub> = 25°C	I <sub>RM</sub>	0.5	mA
at Rated DC Blocking Voltage (Note 3) @ T <sub>A</sub> = 100°C		20	
Typical Capacitance (Note 2)	C <sub>T</sub>	200	pF
Typical Thermal Resistance, Junction to Terminal	R <sub>θJT</sub>	25	°C/W
Typical Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	95	°C/W
Operating Temperature Range	T <sub>j</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

- Notes:
1. Thermal Resistance: Junction to terminal, unit mounted on glass epoxy substrate with 2x3mm copper pad
  2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  3. Short duration test pulse used to minimize self-heating effect.
  4. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7*.

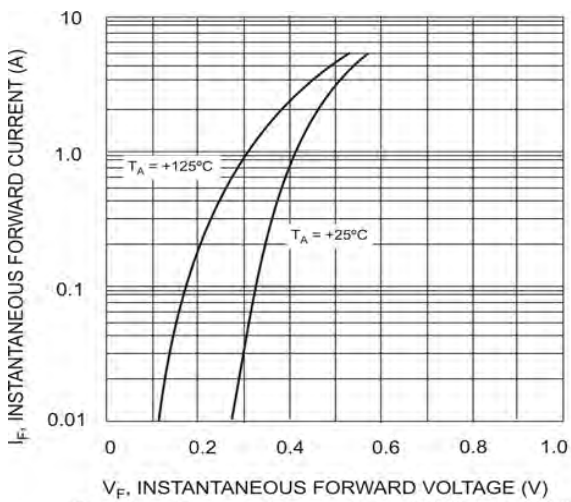
## B340LB Typical Characteristics



$T_T$ , TERMINAL TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics - B320B thru B340B



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 3 Typ. Forward Characteristics - B350B thru B360B

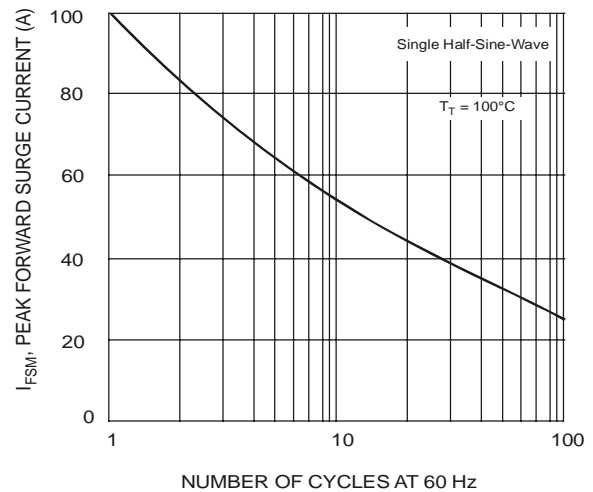
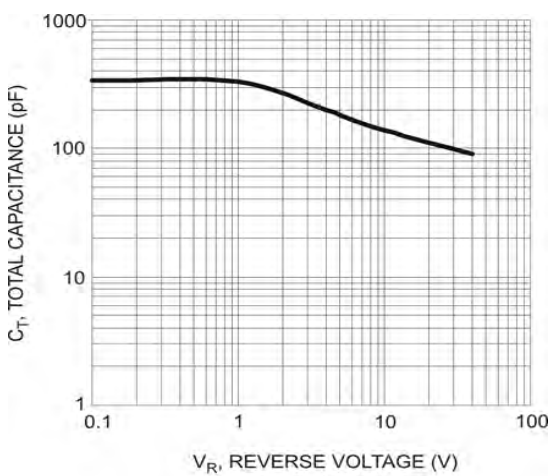
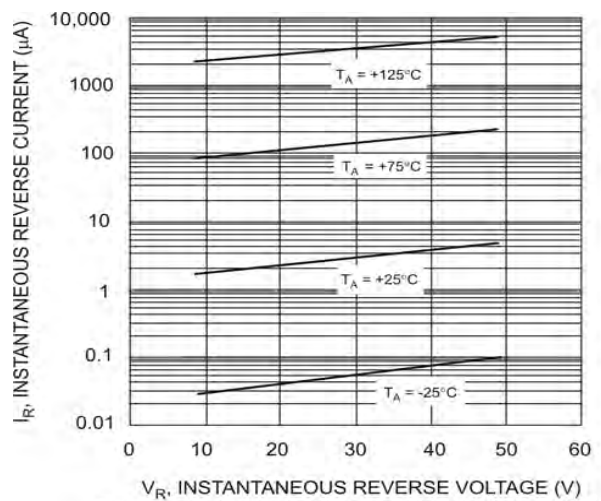


Fig. 4 Max Non-Repetitive Peak Forward Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 5 Typical Capacitance



$V_R$ , INSTANTANEOUS REVERSE VOLTAGE (V)  
Fig. 6 Typical Reverse Characteristics, B320B thru B340B