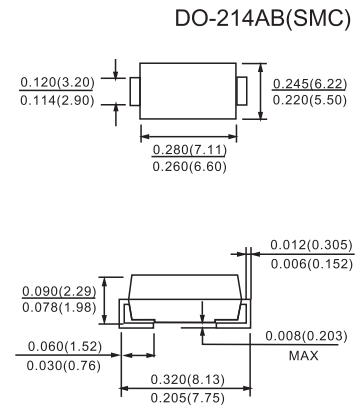


FEATURES

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 100A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- Plastic Material: UL Flammability Classification Rating 94V-0

MECHANICAL DATA

- Case: SMC, Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.21 grams (approx.)
- Marking: B370, B380, B390: Type number
B3100: B310



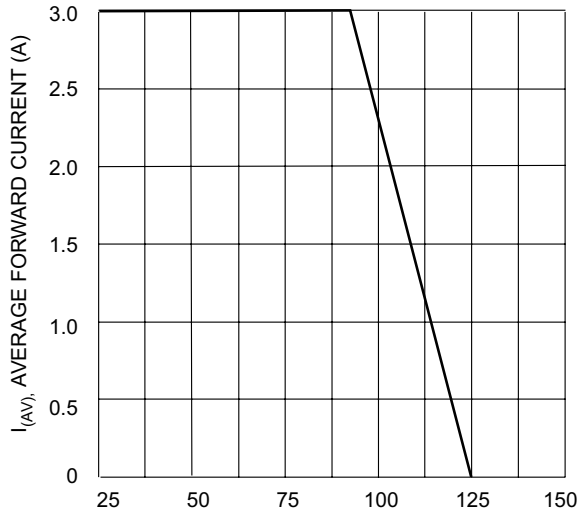
Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

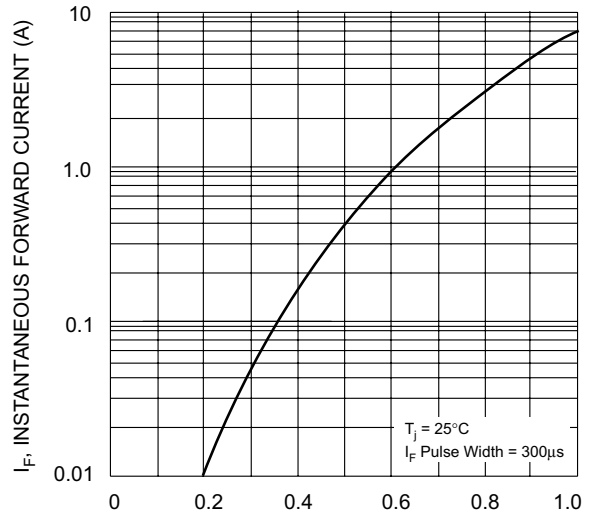
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	B370	B380	B390	B3100	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	70	80	90	100	V
Working Peak Reverse Voltage	V_{RWM}					
DC Blocking Voltage	V_R					
RMS Reverse Voltage	$V_{R(RMS)}$	49	56	63	70	V
Average Rectified Output Current @ $T_T = 90^\circ\text{C}$	I_O	3.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100				A
Forward Voltage @ $I_F = 3.0\text{A}$	V_{FM}		0.79 0.69			V
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}		0.5 20			mA
Typical Junction Capacitance (Note 2)	C_j		100			pF
Typical Thermal Resistance Junction to Terminal (Note 1)	$R_{\theta JT}$		10			$^\circ\text{C/W}$
Operating Temperature Range	T_j		-55 to +125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}		-55 to +150			$^\circ\text{C}$

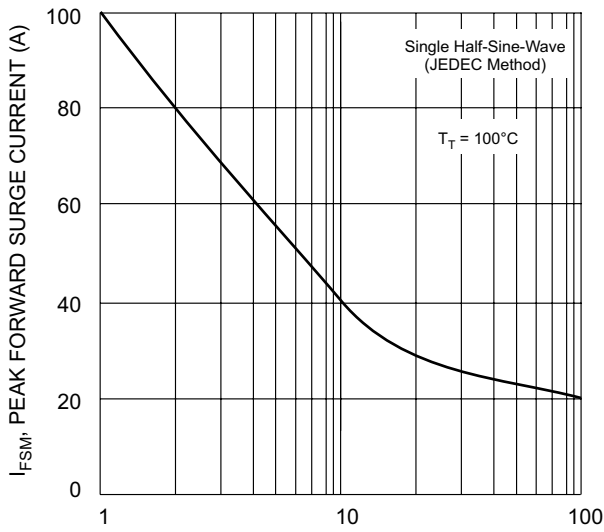
Notes: 1. Valid provided that terminals are kept at ambient temperature.
2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.



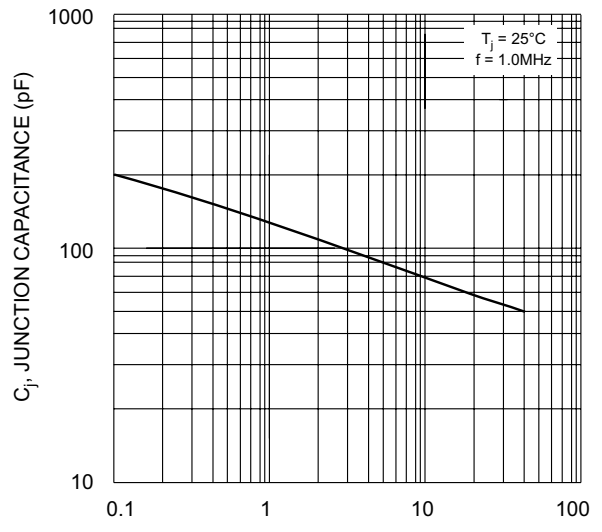
T_T , TERMINAL TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance