

RB160M-30

Surface Mount Schottky Barrier Rectifiers

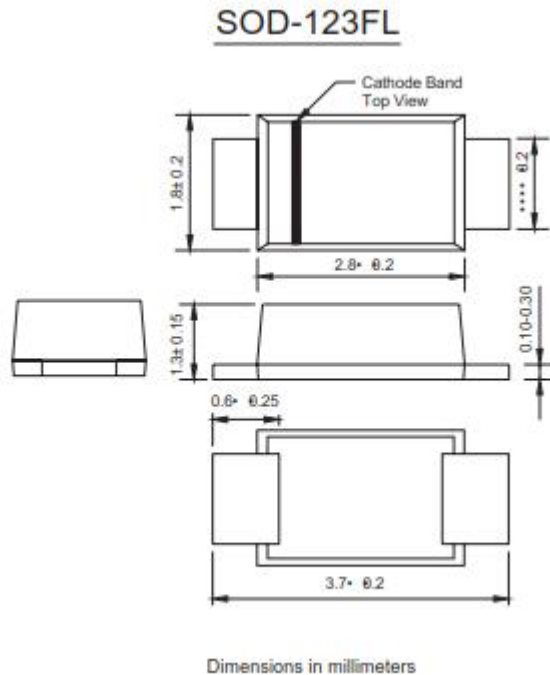


Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	RB160M-30	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Maximum RMS voltage	V_{RMS}	21	
Maximum DC blocking voltage	V_{DC}	30	
Average Rectified Output Current @ $T_A = 90^\circ\text{C}$	I_o	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30	A
Forward Voltage per element @ $I_F = 3.0\text{A}$ (Note 1)	V_{FM}	0.55	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	0.5	mA
At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$		40	
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	85	$^\circ\text{C}/\text{W}$
Operating and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient an

3. d from junction to lead mounted on P.C.B with 0.5×0.5"(13×13mm)copper pads.

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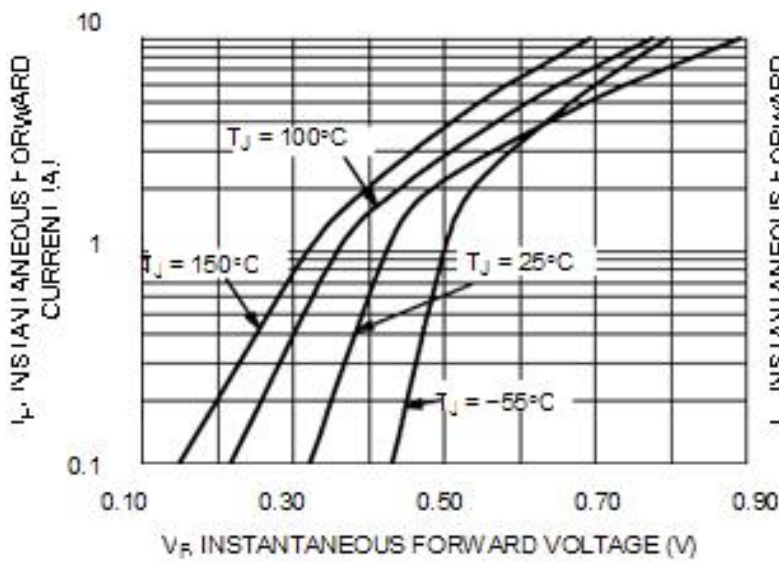


Figure 1. Typical Forward Voltage

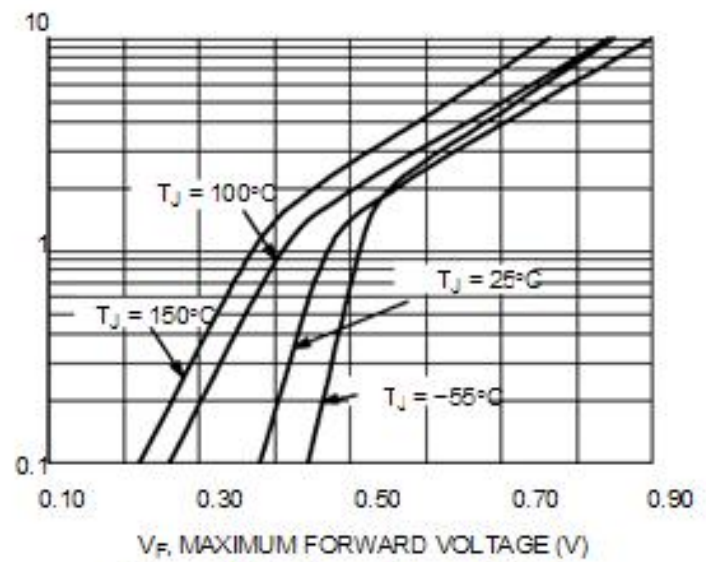


Figure 2. Maximum Forward Voltage

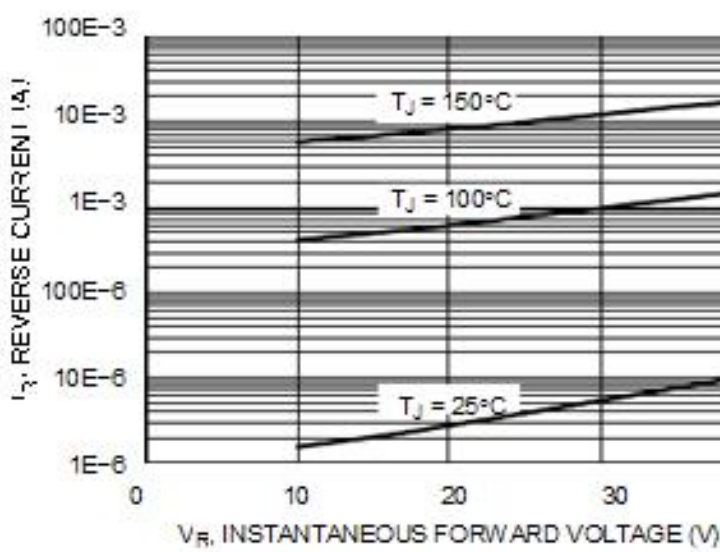


Figure 3. Typical Reverse Current

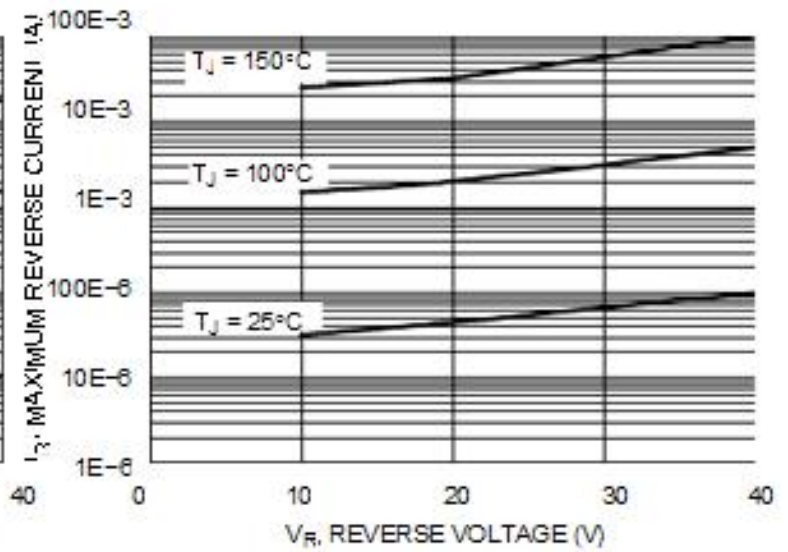


Figure 4. Maximum Reverse Current

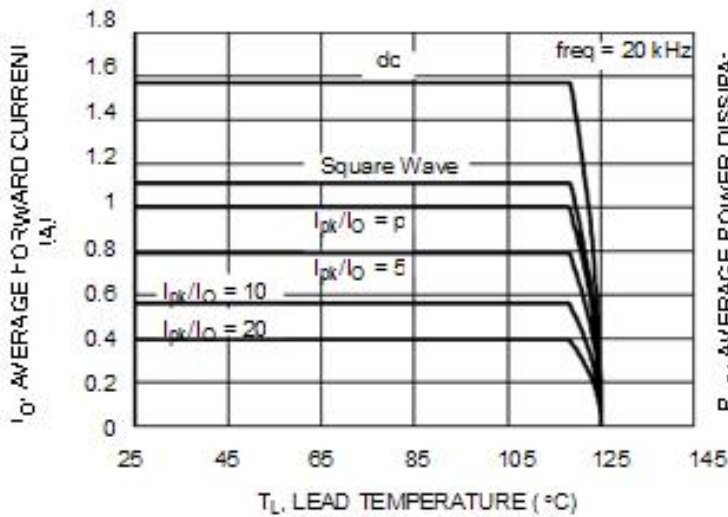


Figure 5. Current Derating

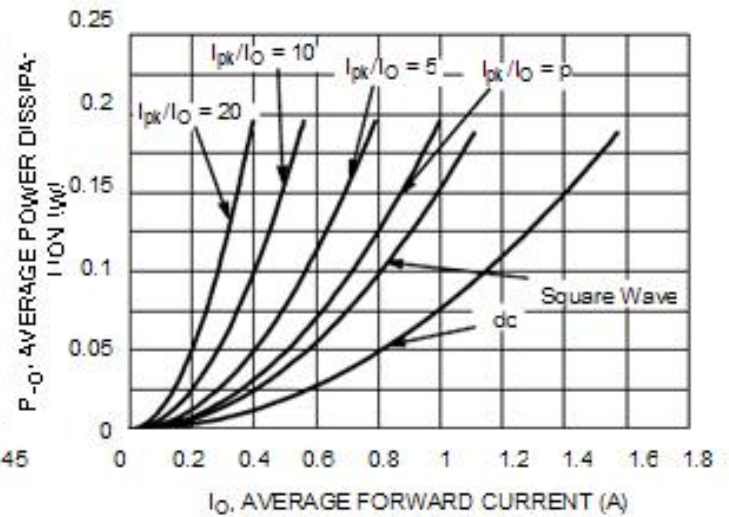


Figure 6. Forward Power Dissipation

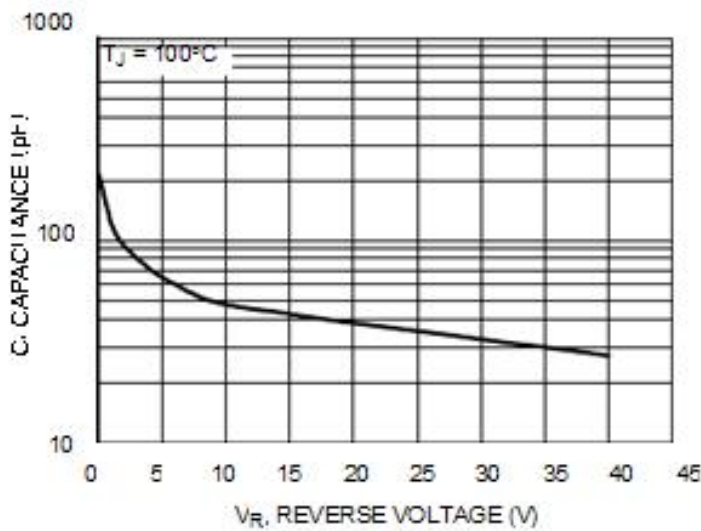


Figure 7. Capacitance

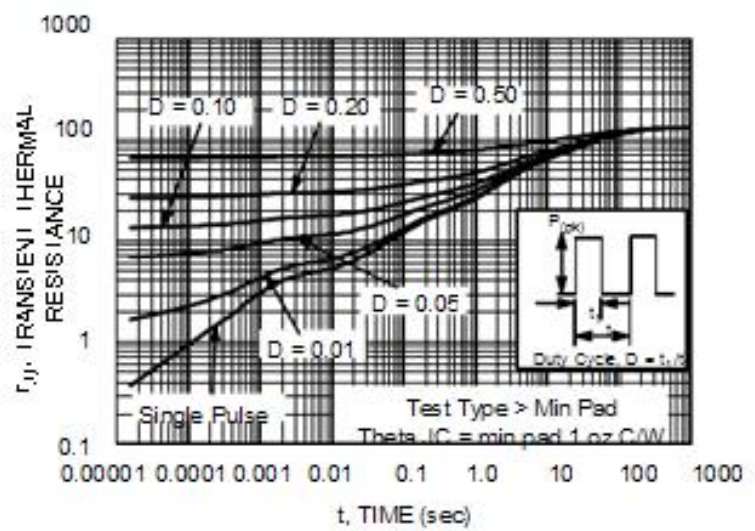


Figure 8. Thermal Response