

RB160M-60

Surface Mount Schottky Barrier Rectifiers

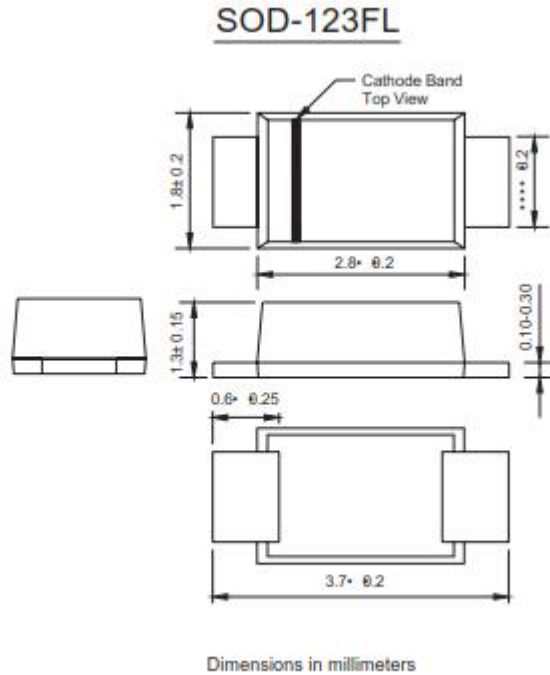


Features

- 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-60	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	
Maximum DC blocking voltage	V_{DC}	60	
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}	0.7	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.

RB160M-60

Surface Mount Schottky Barrier Rectifiers

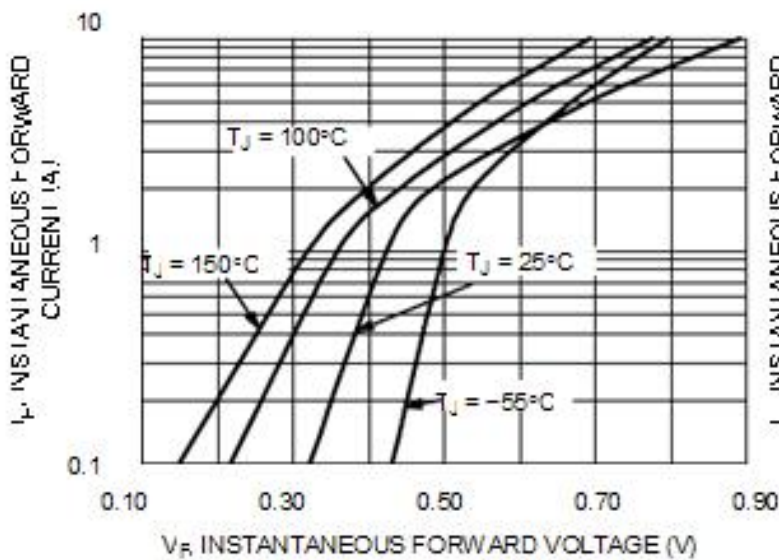


Figure 1. Typical Forward Voltage

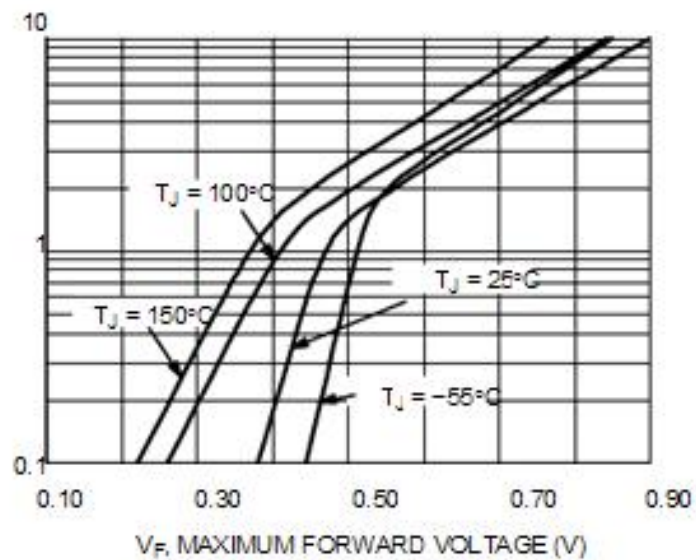


Figure 2. Maximum Forward Voltage

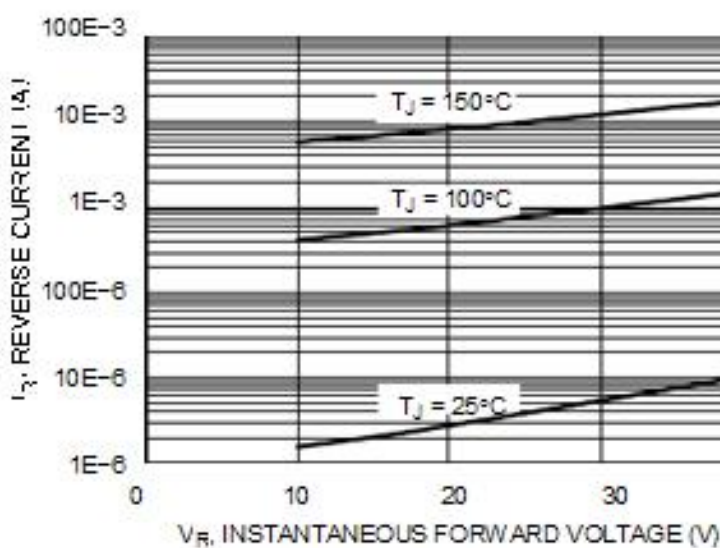


Figure 3. Typical Reverse Current

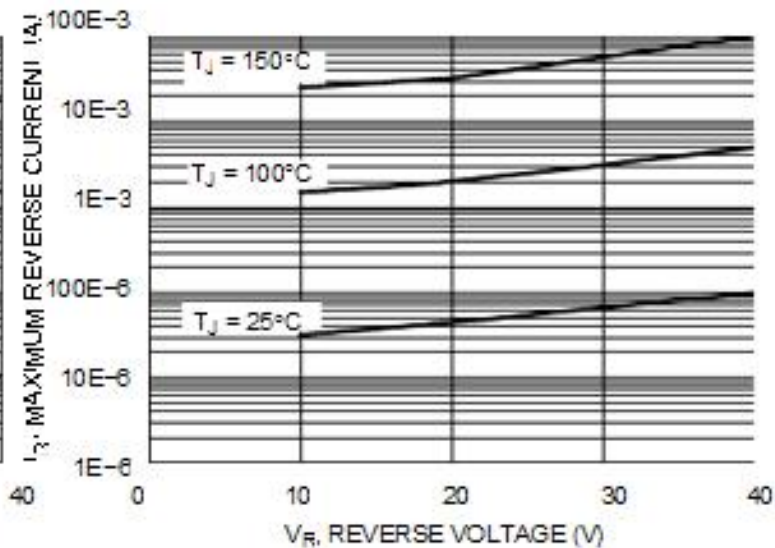


Figure 4. Maximum Reverse Current

RB160M-60

Surface Mount Schottky Barrier Rectifiers

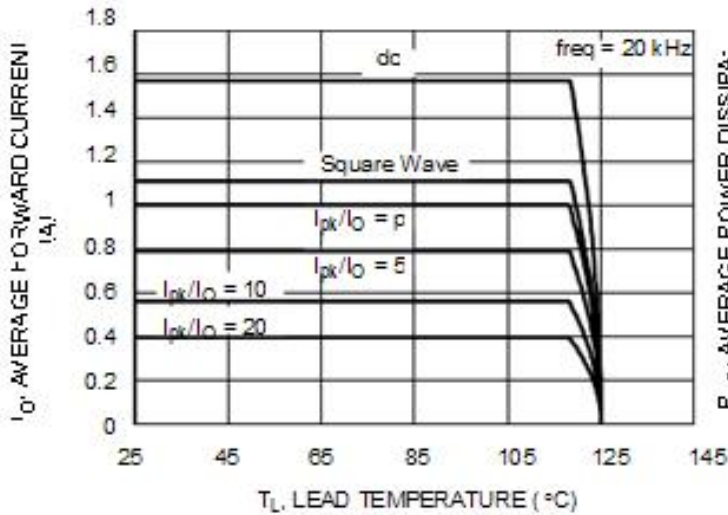


Figure 5. Current Derating

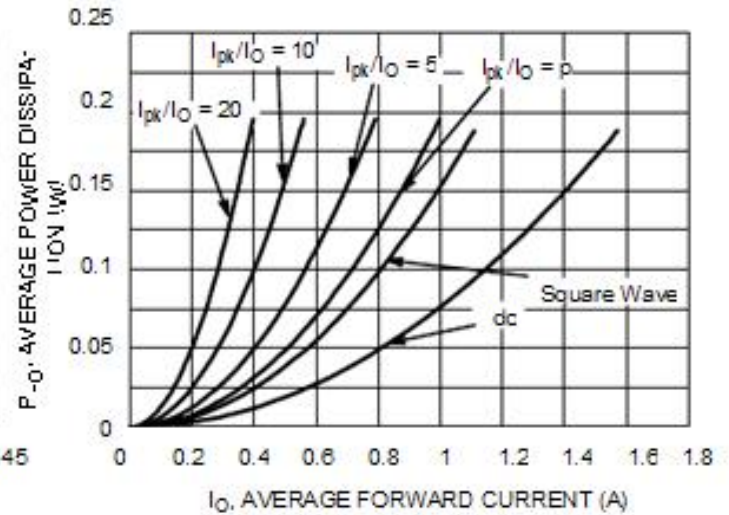


Figure 6. Forward Power Dissipation

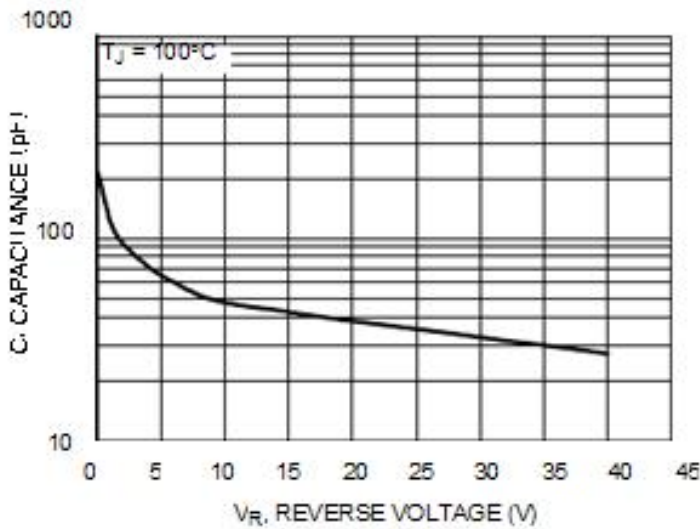


Figure 7. Capacitance

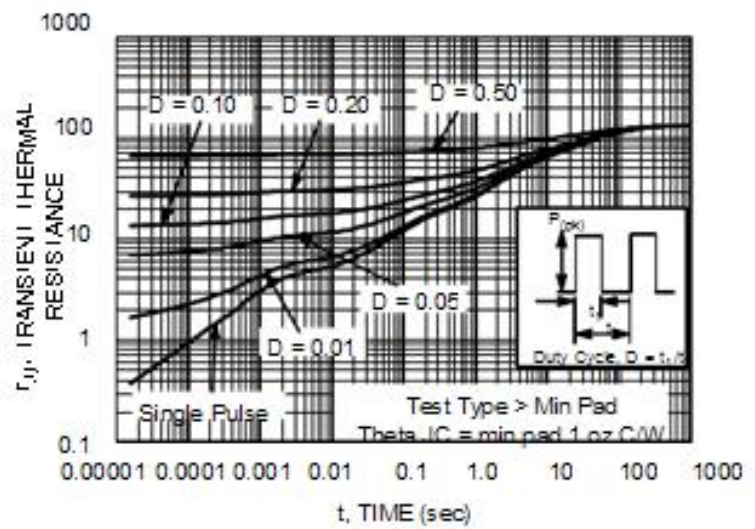


Figure 8. Thermal Response