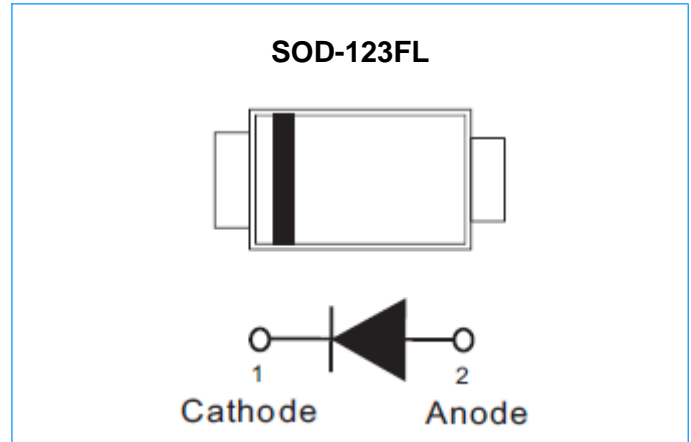


Surface Mount Schottky Barrier Rectifiers

SBD102D1~SBD120D1
20 to 200 V
1A
SOD-123FL

Features

- ⊍ Fast switching speed
- ⊍ Surface mount package ideally suited for automatic insertion
- ⊍ Low power loss, high efficiency
- ⊍ Lead free in compliance with EU RoHS 2.0
- ⊍ Green molding compound as per IEC 61249 standard



Mechanical Data

- ⊍ Case: SOD-123FL, Plastic
- ⊍ Terminals: Solderable per MIL-STD-750, Method 2026
- ⊍ Apprx. Weight: 0.0006 ounces, 0.0173 grams
- ⊍ Polarity: Color band denotes cathode end

Electrical and Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SBD102D1	SBD103D1	SBD104D1	SBD106D1	SBD110D1	SBD115D1	SBD120D1	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	100	150	200	V
Average Rectified Current	$I_{F(AV)}$	1							A
Forward Current RMS, D=0.5	$I_{F(RMS)}$	2							A
Non-repetitive Peak Forward Surge Current at t=8.3ms	I_{FSM}	40					30		A
Maximum Forward Voltage at $I_F=1\text{A}$	V_F	0.55		0.7	0.8	0.85		V	
Reverse Leakage Current at V_{RRM}	I_R	30							μA
Typical Thermal Resistance	(Note 1)	$R_{\theta JC}$							$^\circ\text{C}/\text{W}$
	(Note 2)	$R_{\theta JA}$							
Typical Junction Capacitance Rating at $V_R=0\text{V}$	C_J	155		125	100	85		pF	
Operating Junction Temperature and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

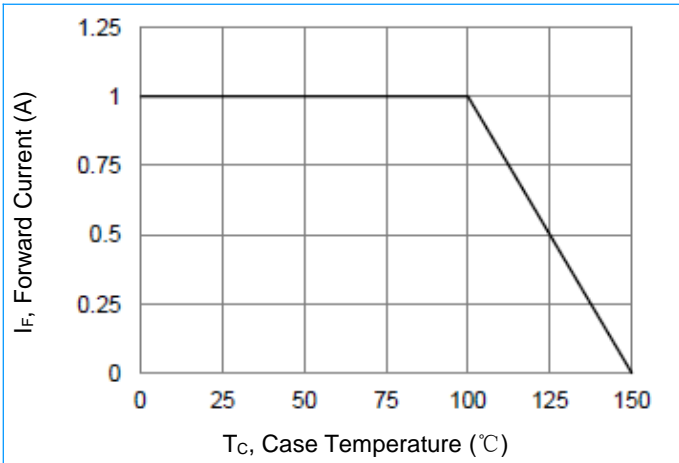
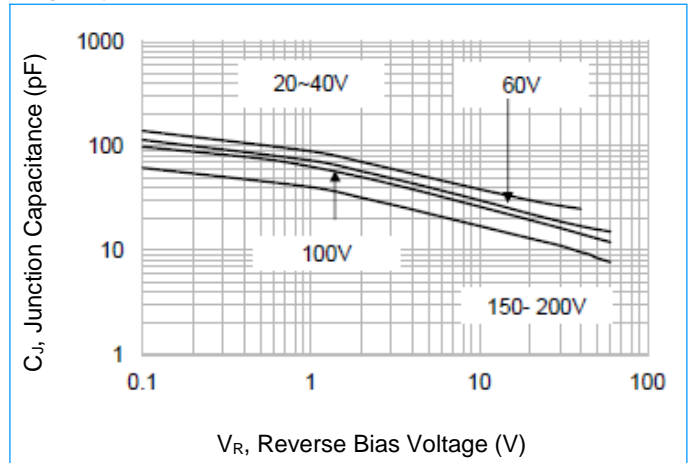
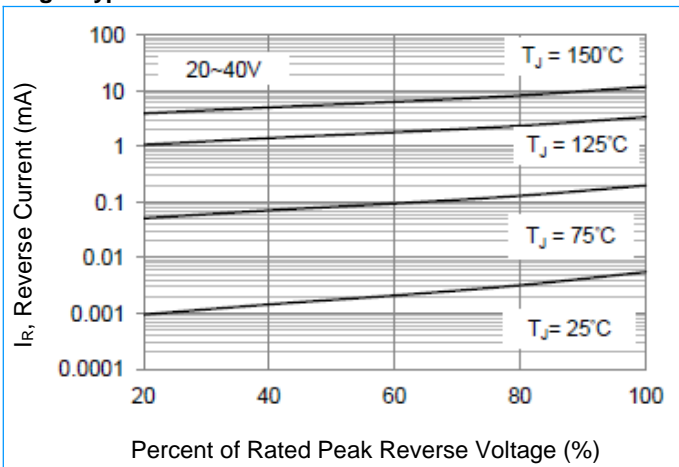
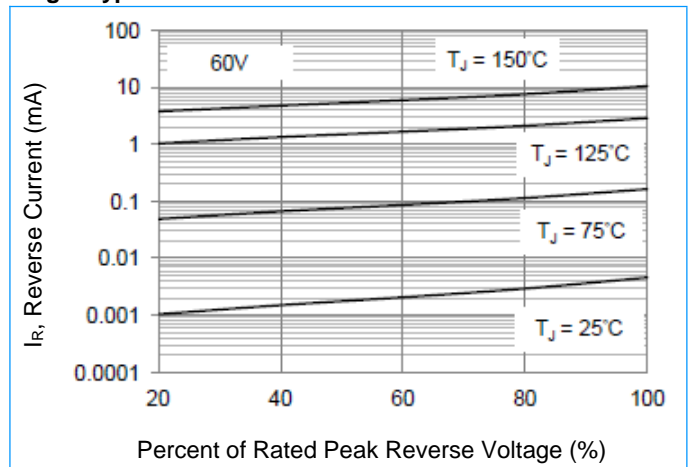
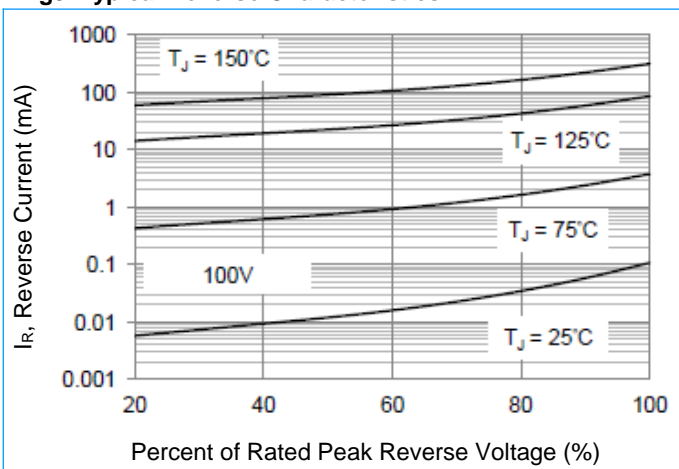
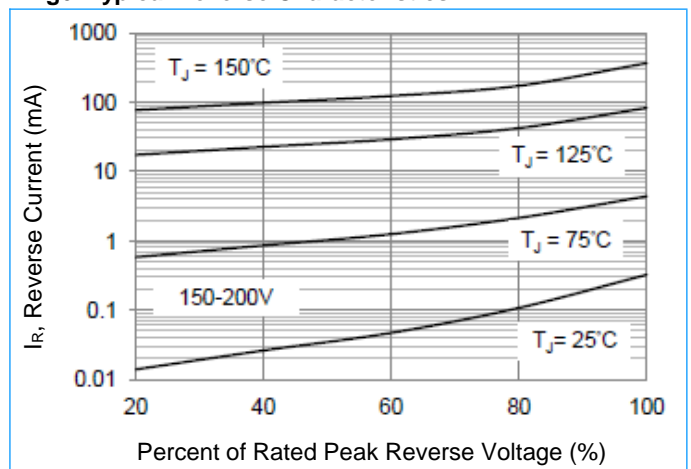
Notes: 1. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.

2. Mounted on a FR4 PCB, single-sided copper, mini pad.

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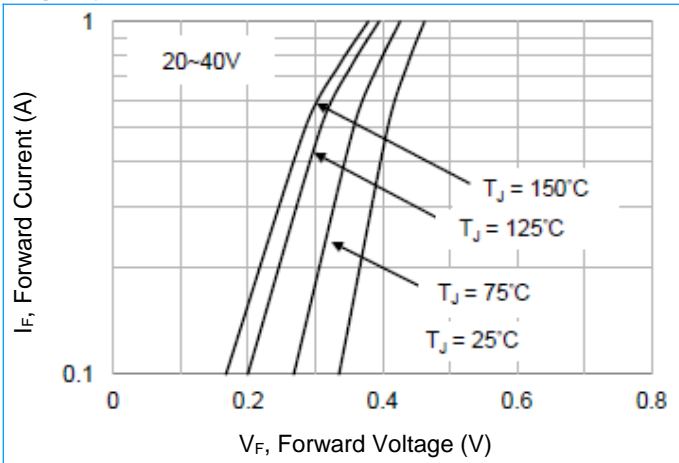
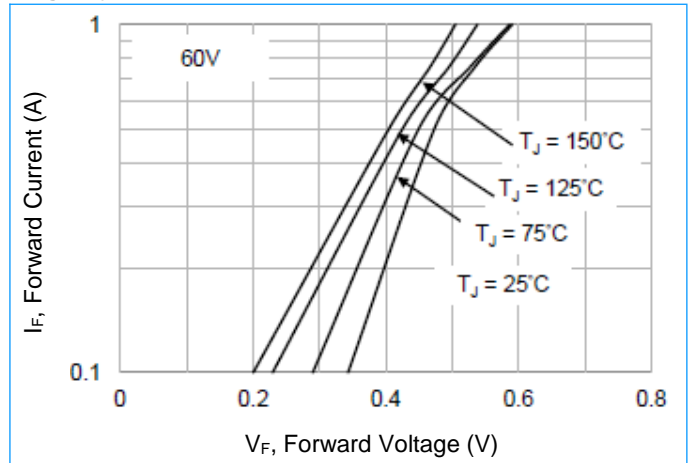
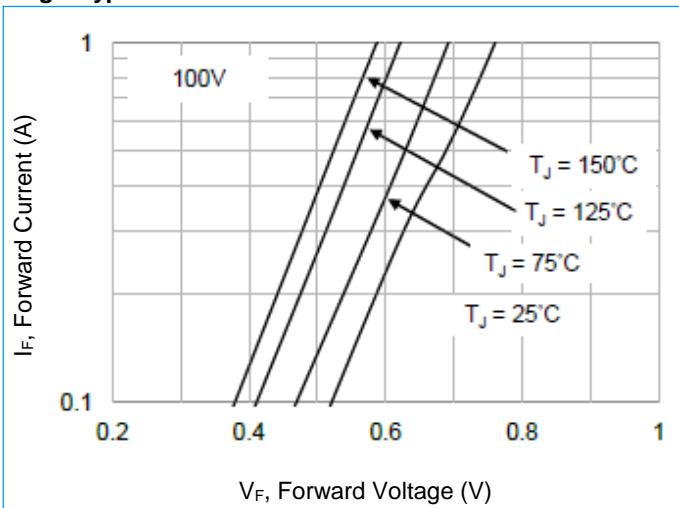
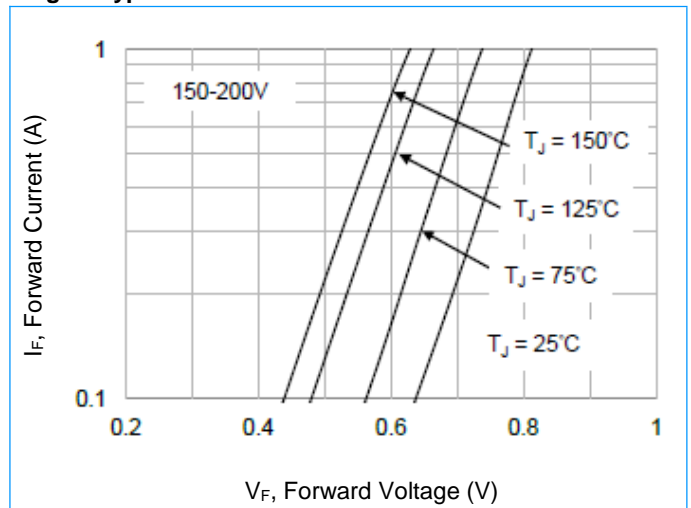
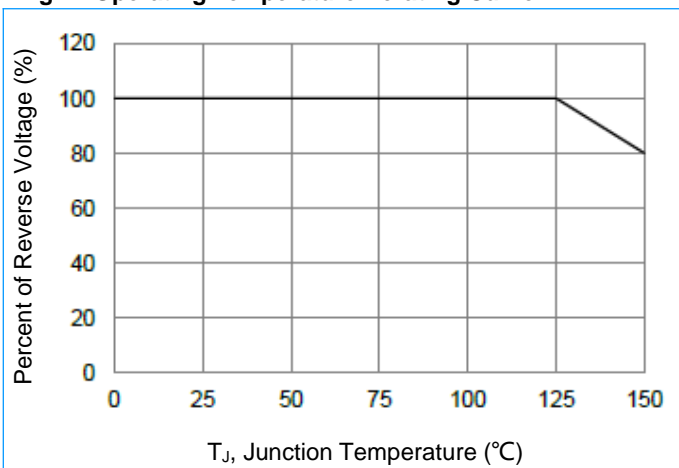
Rating and Characteristic Curves

Fig1. Forward Current Derating Curve

Fig2. Typical Junction Capacitance

Fig3. Typical Reverse Characteristics

Fig4. Typical Reverse Characteristics

Fig5. Typical Reverse Characteristics

Fig6. Typical Reverse Characteristics


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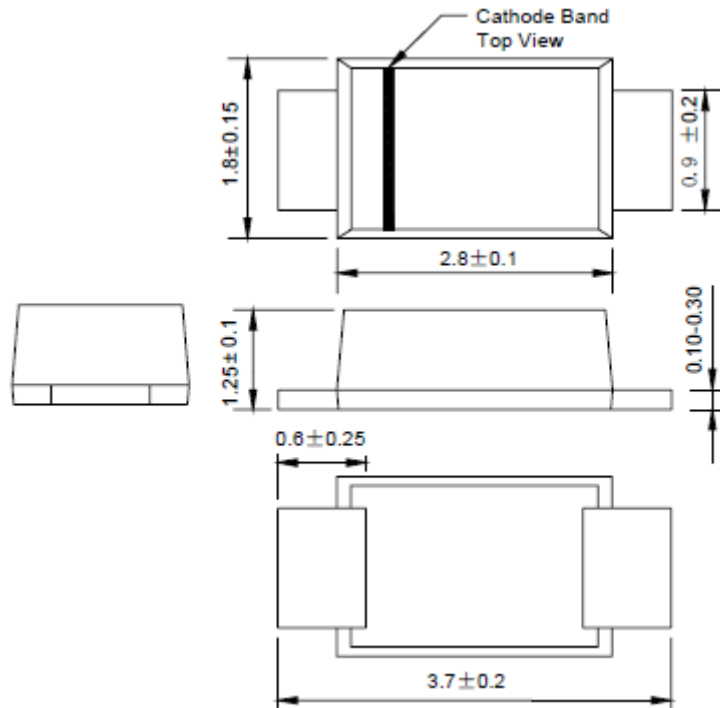
Rating and Characteristic Curves (Continue)

Fig7. Typical Forward Characteristics

Fig8. Typical Forward Characteristics

Fig9. Typical Forward Characteristics

Fig10. Typical Forward Characteristics

Fig11. Operating Temperature Derating Curve


Surface Mount Schottky Barrier Rectifiers

SBD102D1~SBD120D1
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SOD-123FL

SOD-123FL Package Outline (Unit: inch(mm))



Packaging Information

Part Number	Component Package	Quantity	Packaging Option
SBD102D1~SBD120D1	SOD-123FL	10000 PCS	per 13" plastic Reel
		3000 PCS	per 7" plastic Reel