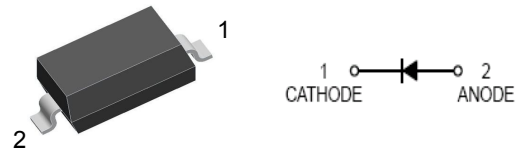


Schottky Barrier Diode in SOD-123

Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature
- Meet MSL level 2



Mechanical Data

- **Case:** SOD-123 (plastic package).
Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- For use of fast switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

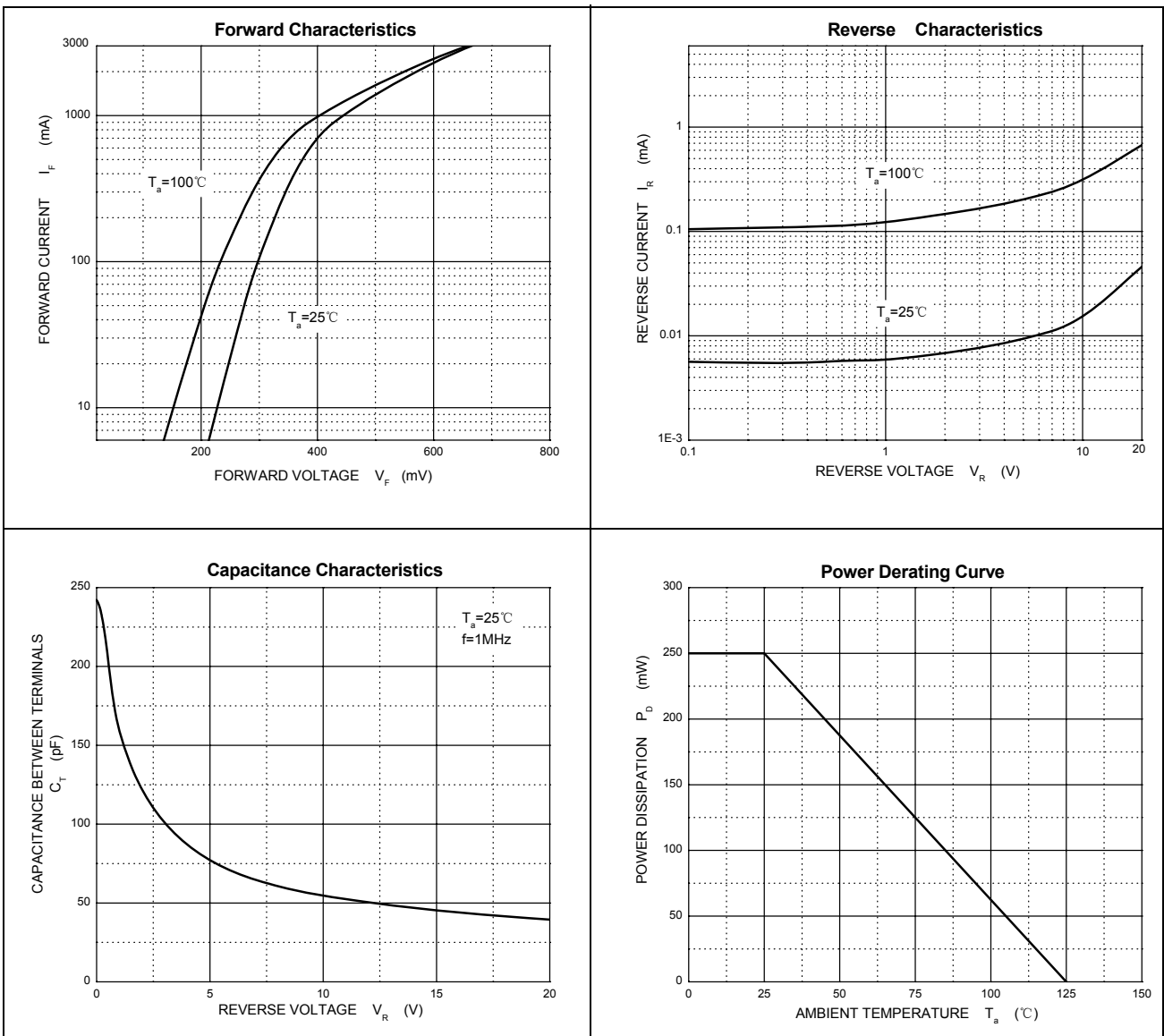
Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Non-repetitive peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Working peak reverse voltage	V_{RWM}				
DC blocking voltage	V_R				
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	I_O	1			A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	J			A
Repetitive peak forward current	I_{FRM}	1.5			A
Power dissipation	P_d	500			mW
Thermal resistance junction to ambient	$R_{\theta JA}$	200			°C/W
Junction temperature	T_J	125			°C
Storage temperature	T_{STG}	-55~+150			°C

Electrical Characteristics

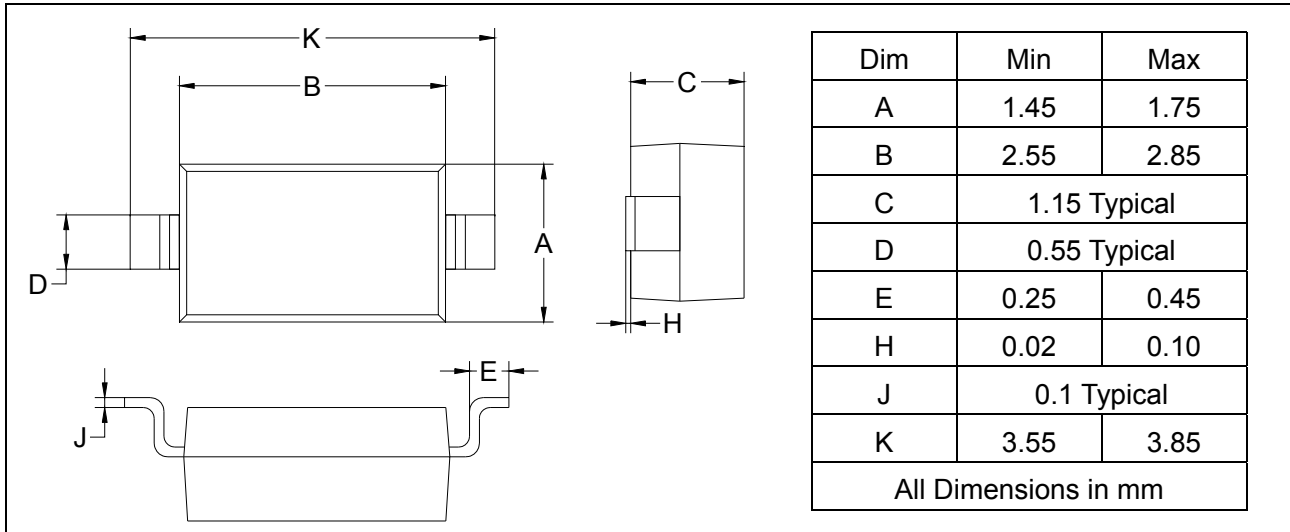
($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 1\text{mA}$ B5817W B5818W B5819W	20 30 40		V
Reverse voltage leakage current	I_R	$V_R = 20\text{V}$ $V_R = 30\text{V}$ $V_R = 40\text{V}$ B5817W B5818W B5819W		1	mA
Forward voltage	V_F	B5817W $I_F = 1\text{A}$		0.45	V
		$I_F = 3\text{A}$		0.75	V
		B5818W $I_F = 1\text{A}$		0.55	V
		$I_F = 3\text{A}$		0.875	V
		B5819W $I_F = 1\text{A}$		0.6	V
		$I_F = 3\text{A}$		0.9	V
Diode capacitance	C_D	$V_R = 4\text{V}, f = 1\text{MHz}$		120	pF

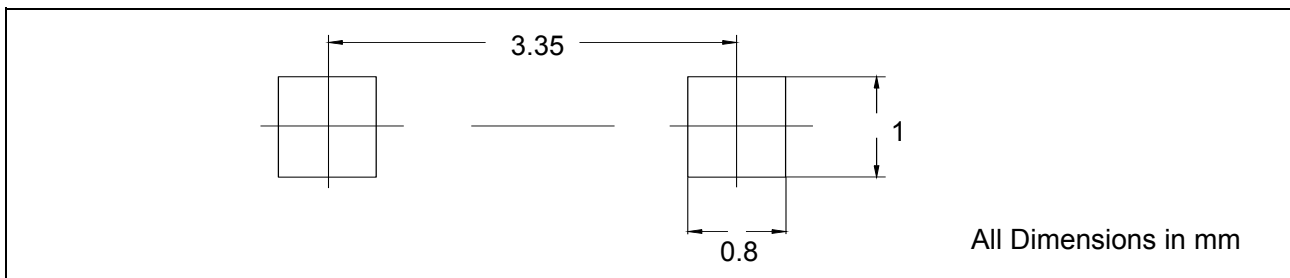
Typical Characteristics ($T_{amb} = 25^\circ\text{C}$ unless otherwise specified)



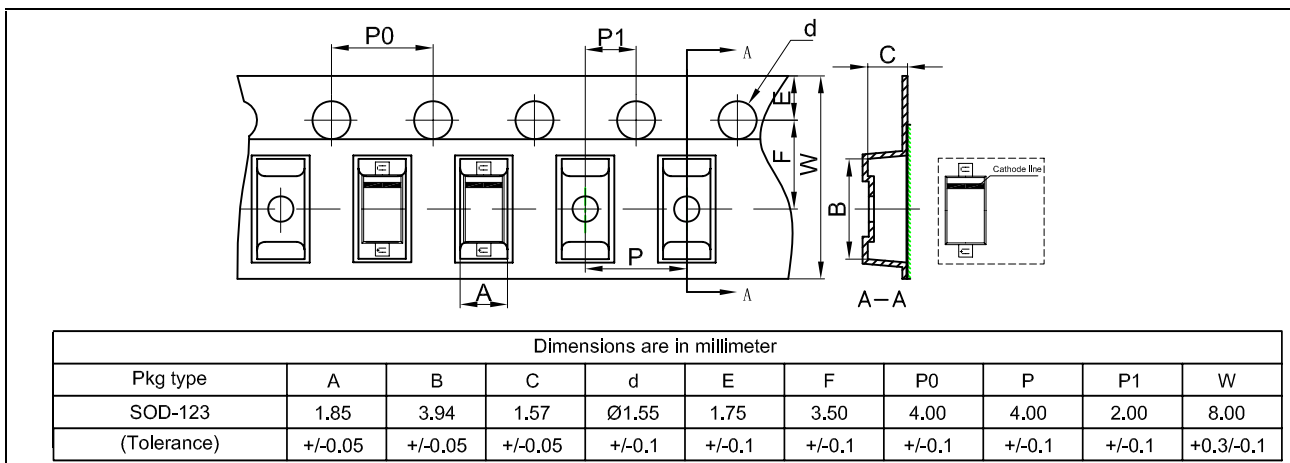
Package Dimensions



PAD Dimension



Package Information



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
B5817W thru B5819W	SOD-123	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
1-Aug.-2025	3.1	Increase MSL level

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