

Schottky Barrier Diode in SOD-123

Features

- High Conductance
- Low forward voltage drop
- Guard Ring Construction for Transient Protection



Mechanical Data

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

Applications

- Low Voltage Rectification
- Switch Mode Power Supply
- Inverse Polarity Protection
- High Efficiency DC/DC Conversion
- Low Power Consumption Applications

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

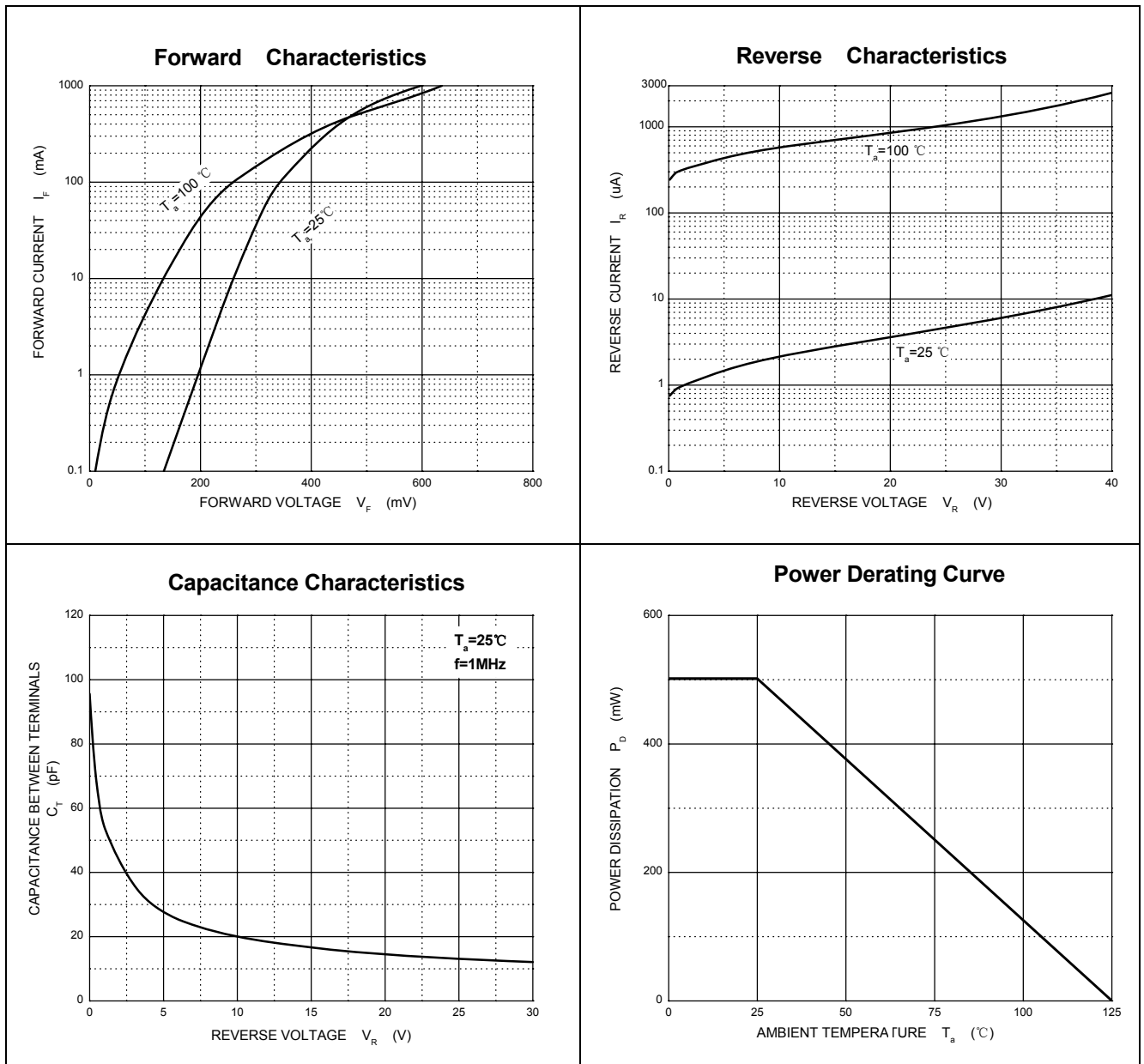
Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	30	V
Peak repetitive peak reverse voltage Working peak reverse voltage DC blocking voltage	V_{RRM} V_{RWM} V_R	30	V
RMS reverse voltage	$V_{R(RMS)}$	20	V
Average rectified output current	I_O	0.5	A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	5.5	A
Power dissipation	P_d	500	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500	°C/W
Junction temperature	T_J	125	°C
Storage temperature	T_{STG}	-55~+150	°C
Voltage rate of change	dv/dt	1000	V/ μ s

Electrical Characteristics

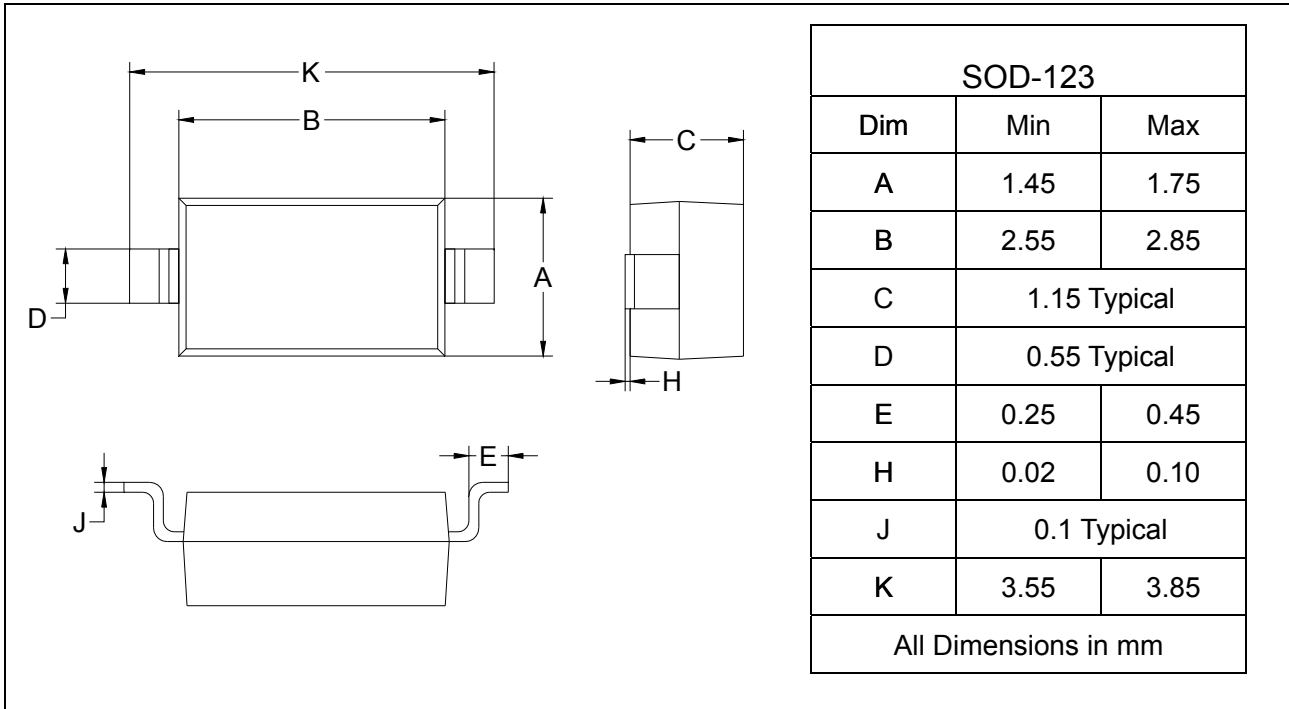
($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 200\mu\text{A}$	30		V
Reverse voltage leakage current	I_R	$V_R = 15\text{V}$		200	μA
Forward voltage	V_F	$I_F = 0.1\text{A}$		0.375	V
		$I_F = 0.5\text{A}$		0.43	V
Capacitance between terminals	C_T	$V_R = 0, f = 1\text{MHz}$		170	pF

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



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
B0530W	SOD-123	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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