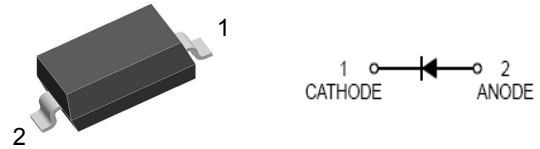


## Schottky Barrier Diode in SOD-123

### Features

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



### Mechanical Data

- **Case:** SOD-123 (plastic package).  
Lead free; RoHS compliant; Halogen free
- **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

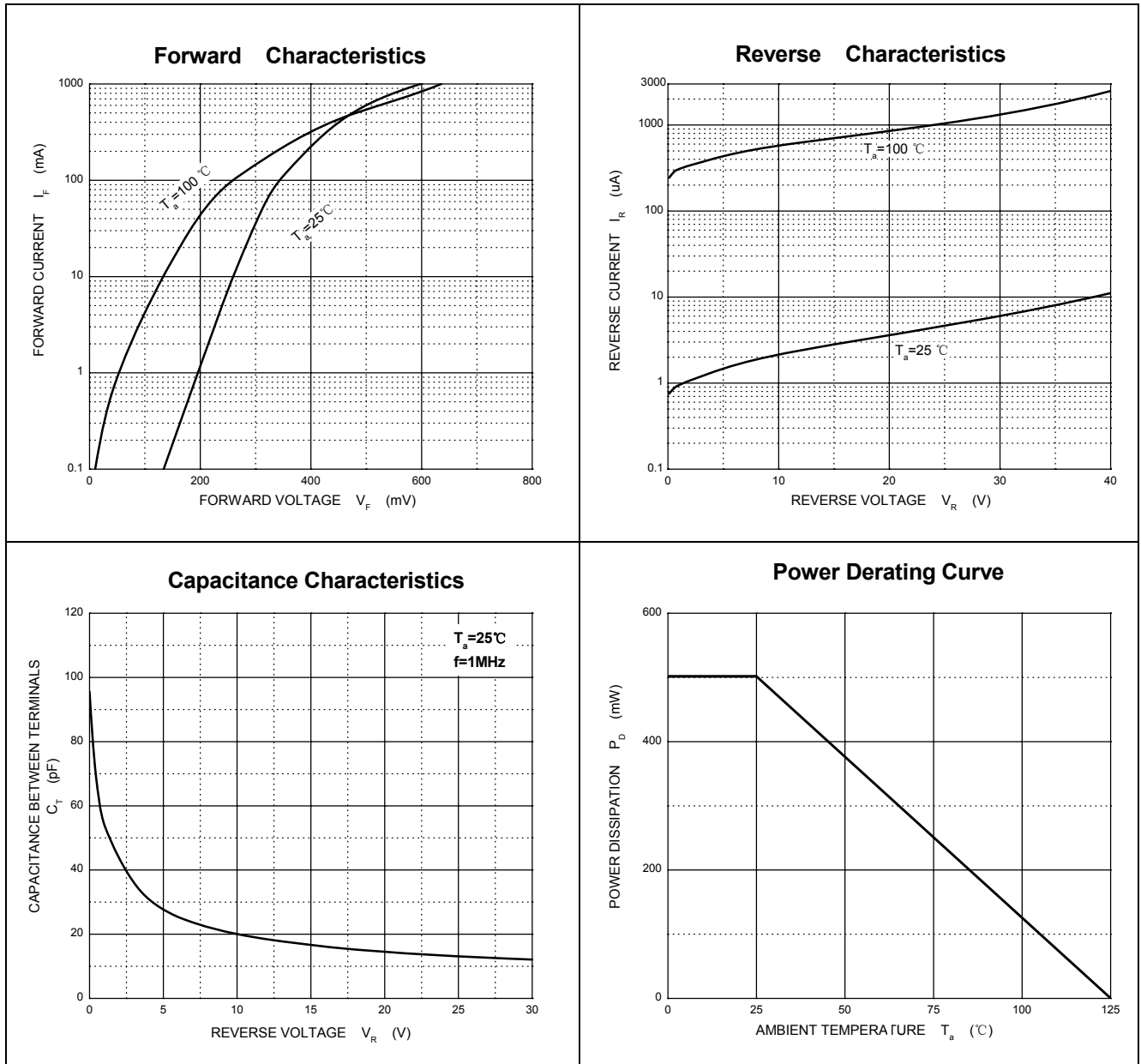
Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	30	V
Peak repetitive peak reverse voltage	$V_{RRM}$	30	V
Working peak reverse voltage	$V_{RWM}$		
DC blocking voltage	$V_R$		
RMS reverse voltage	$V_{R(RMS)}$	20	V
Average rectified output current	$I_O$	0.5	A
Non-repetitive Peak 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/ $\mu$ s

**Electrical Characteristics**

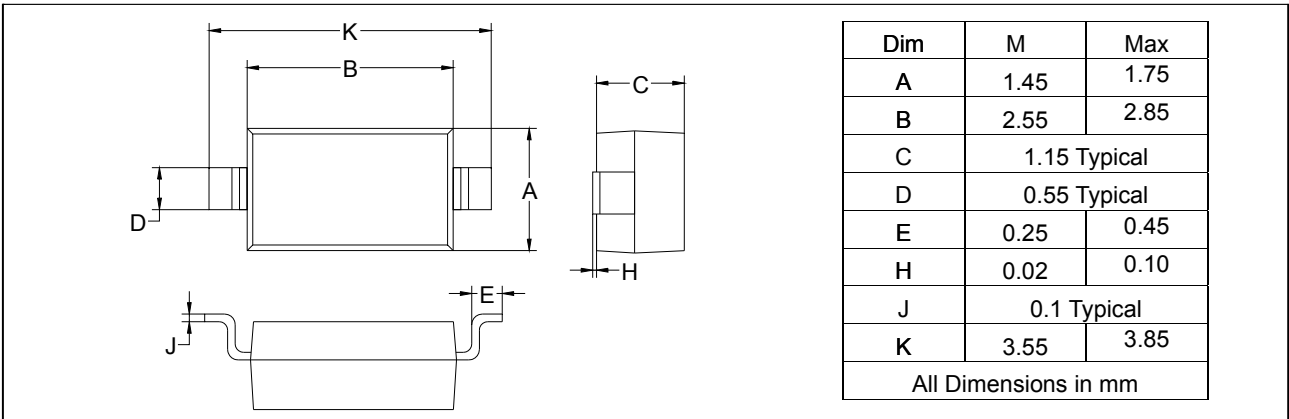
( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise specified)

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	$\mu\text{A}$
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

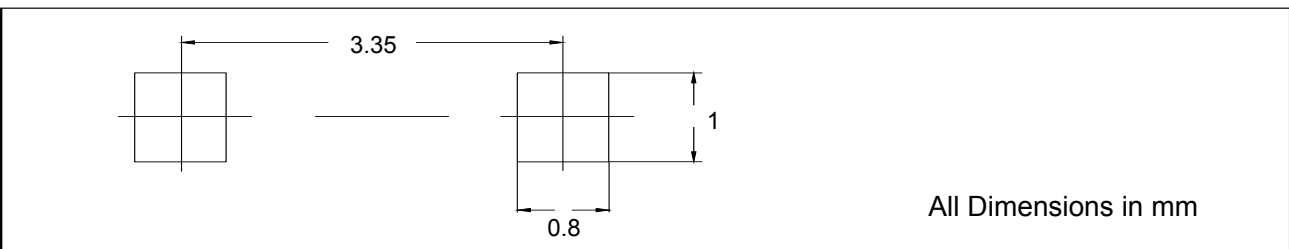
**Typical Characteristics** ( $T_{amb} = 25\text{ }^\circ\text{C}$  unless otherwise specified)



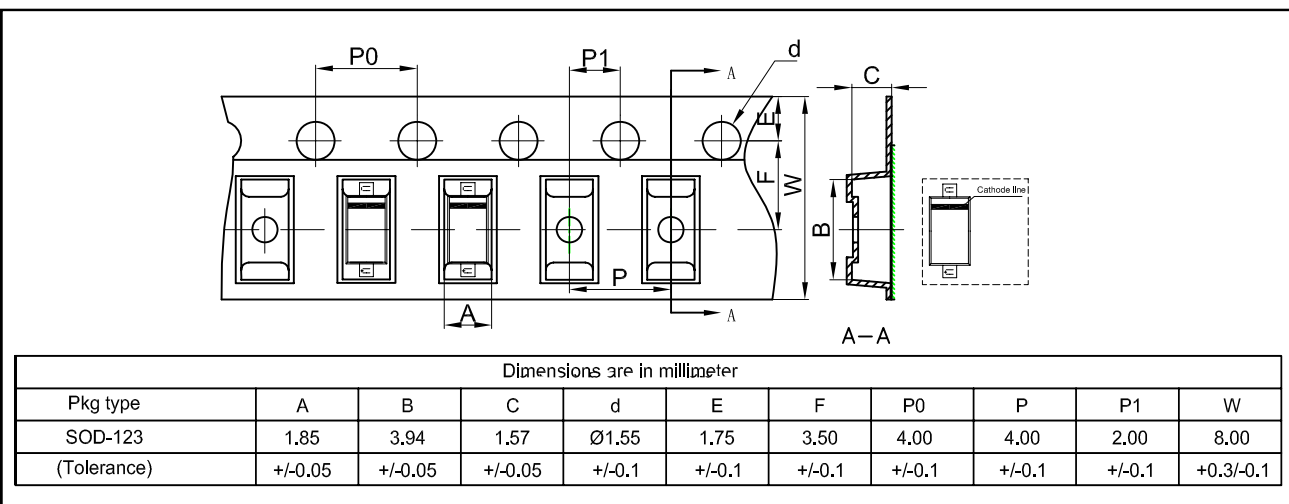
**Package Dimensions**



**PAD Dimension**



**PAD Dimension**



**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-2020	1.0	Initial release

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