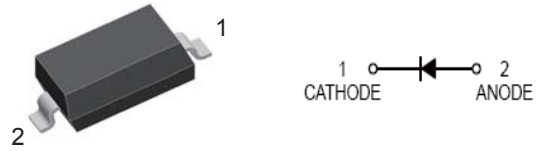


## Schottky Barrier Diode in SOD-123

### Features

- High breakdown voltage
- Low turn-on voltage
- 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

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Limit	Unit
Peak repetitive peak reverse voltage	$V_{RRM}$	100	V
Working peak reverse voltage	$V_{RWM}$		
Forward continuous current	$I_F$	150	mA
Repetitive peak forward current (Note 1) @ $t_p < 1.0s$ , Duty Cycle < 50%	$I_{FRM}$	350	mA
Non-repetitive Peak Forward surge current @ $t = 8.3ms$	$I_{FSM}$	750	mA
Power dissipation	$P_D$	500	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	200	°C/W
Junction temperature	$T_J$	125	°C
Storage temperature	$T_{STG}$	-55~+150	°C

### Electrical Characteristics

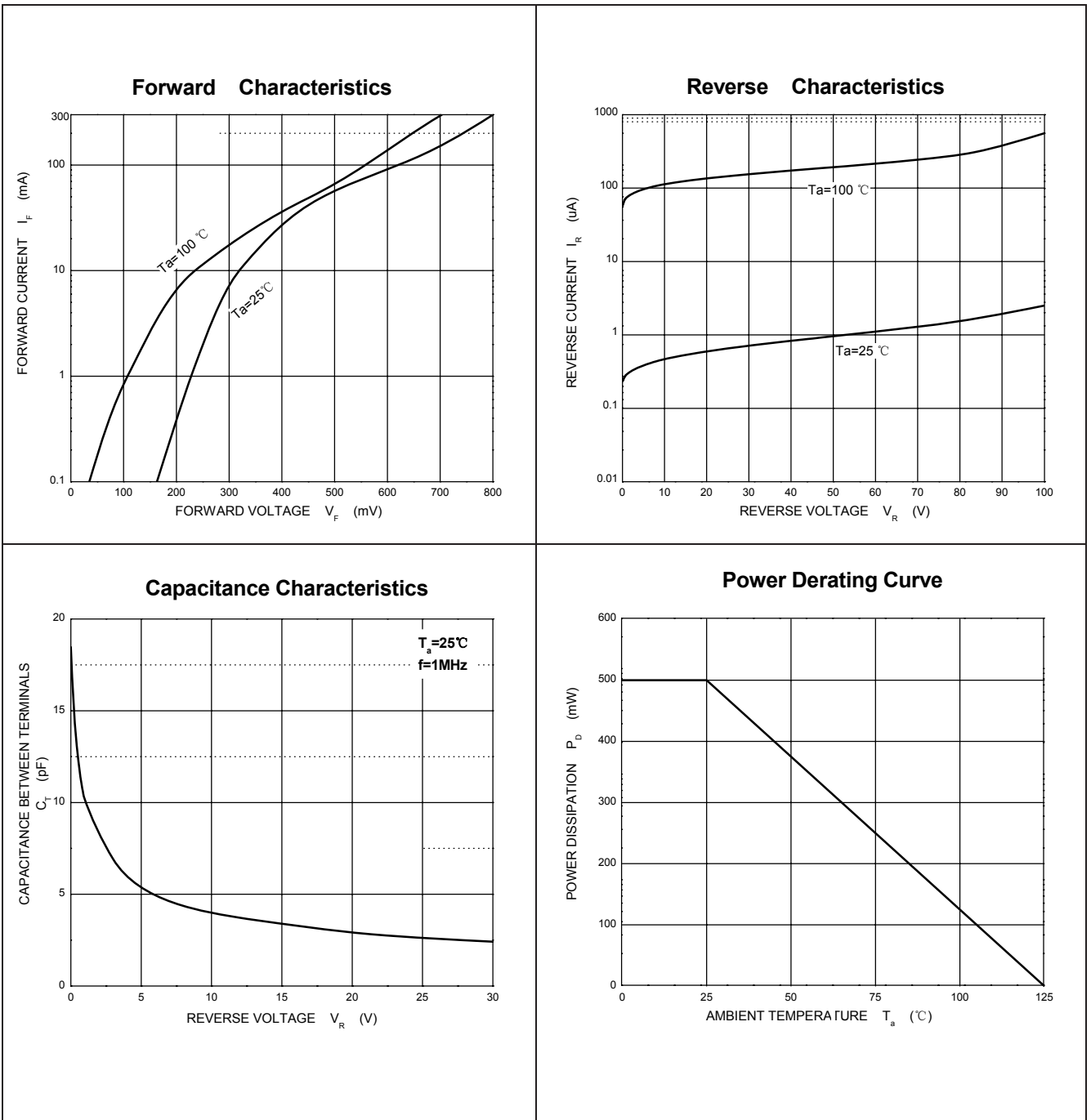
( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage(Note 2)	$V_R$	$I_R = 100\mu A$	100			V
Reverse voltage leakage current	$I_R$	$V_{R1} = 1.5V$			0.3	$\mu A$
		$V_{R2} = 10V$			0.5	
		$V_{R3} = 50V$			1	
		$V_{R4} = 75V$			2	
Forward voltage(Note 2)	$V_F$	$I_{F1} = 0.1mA$			0.25	V
		$I_{F2} = 10mA$			0.45	
		$I_{F3} = 250mA$			1	
Diode capacitance	$C_T$	$V_R = 0, f = 1MHz$		20		pF
		$V_R = 1V, f = 1MHz$		12		

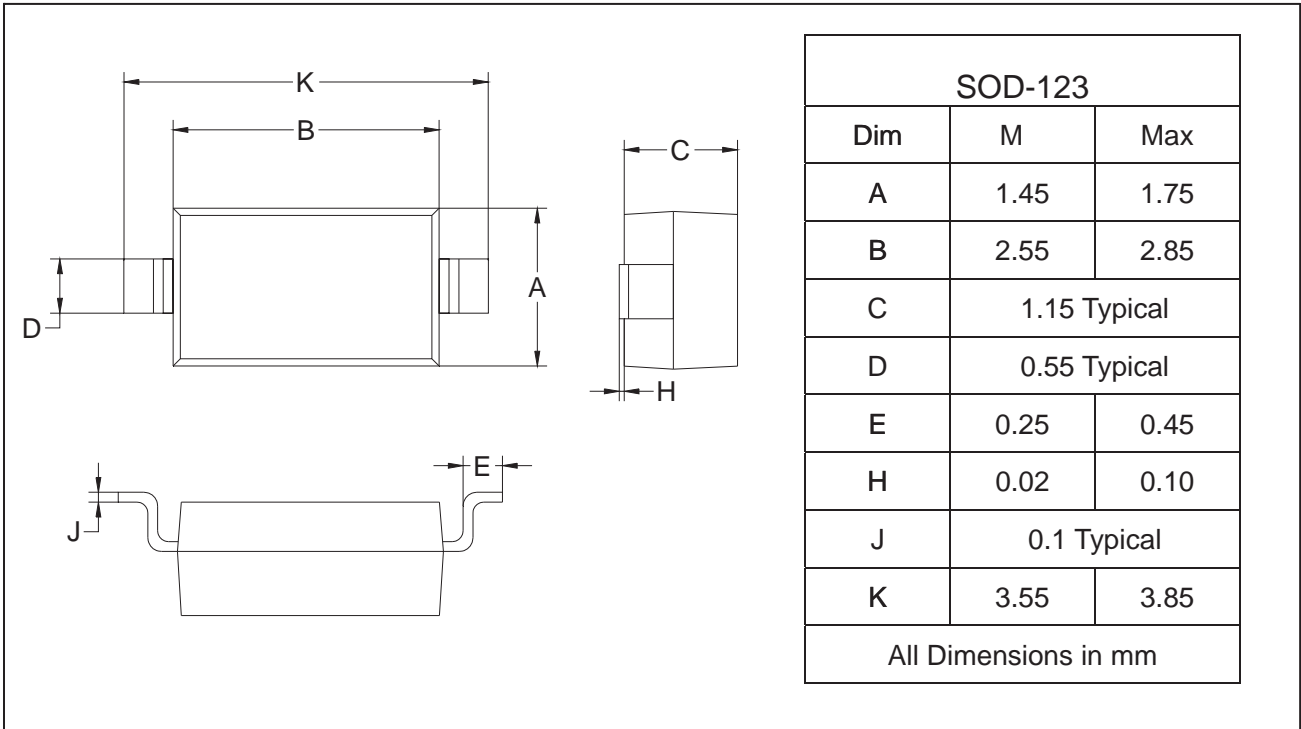
Notes: 1. Part mounted on FR-4 board with recommended pad layout.

2. Short duration pulse test used to minimize self-heating effect.

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



### Package Dimensions



### Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
BAT46W	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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