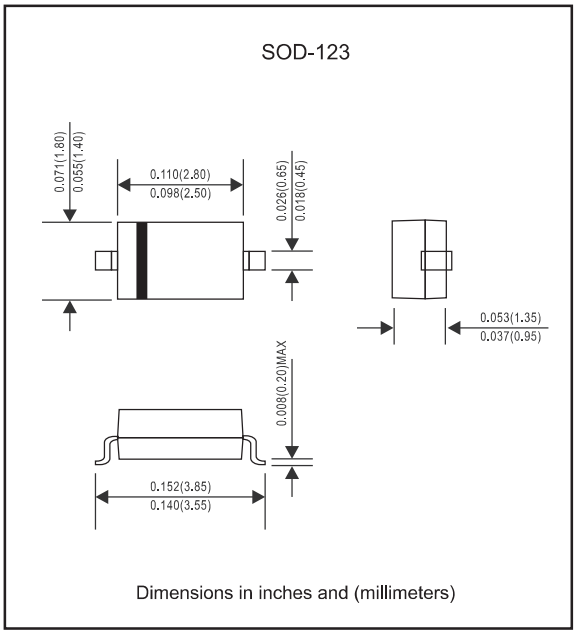
BAT46W

0.15A Surface Mount Schottky Barrier Rectifiers - 100V

Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

Package outline



Mechanical data

- **Case**: JEDEC SOD-123 molded plastic body
- **Terminals**: Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity**: Color band denotes cathode end
- **Mounting Position**: Any

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Peak repetitive peak reverse voltage **Working peak reverse voltage**	V_{RRM} V_{RWM}	100	V
Forward continuous current	I_F	150	mA
Repetitive peak forward current (Note 1) @ tp < 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	℃/W
Operating Junction Temperature Range	T_j	-40 ~ +125	℃
Storage Temperature Range	T_{STG}	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage(Note 2)	V_R	I_R= 100μA	100			V
Reverse voltage leakage current	I_R	V_{R1}=1.5V			0.3	μA
		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.

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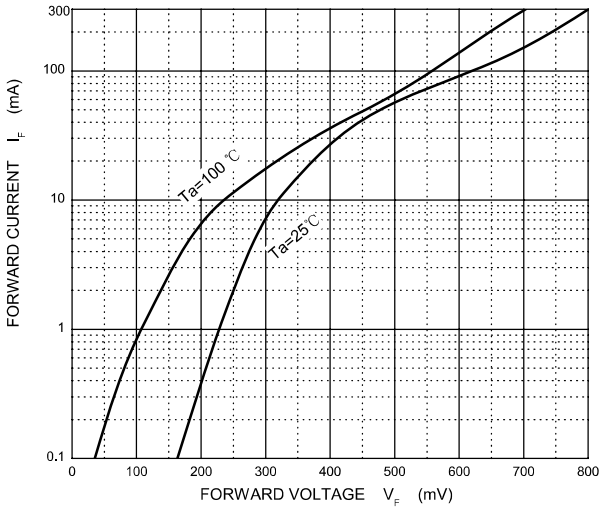
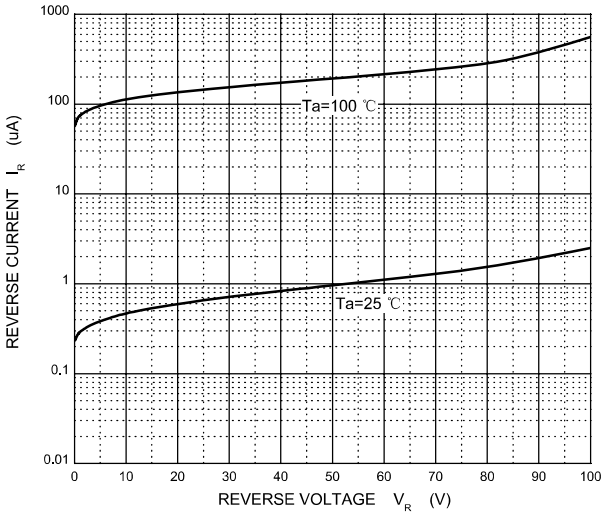
Rating and characteristic curves

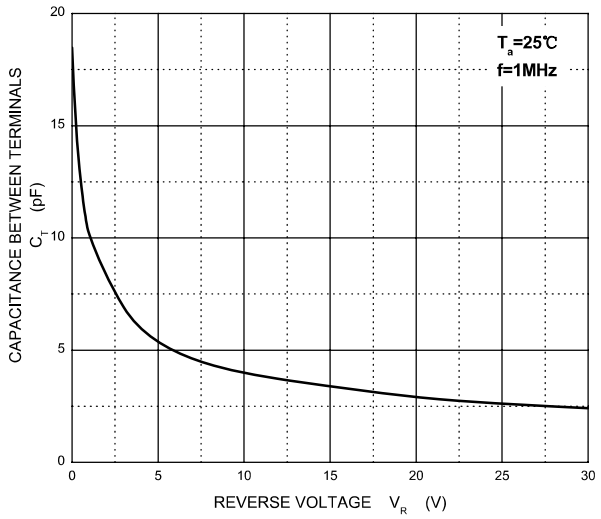
Forward Characteristics



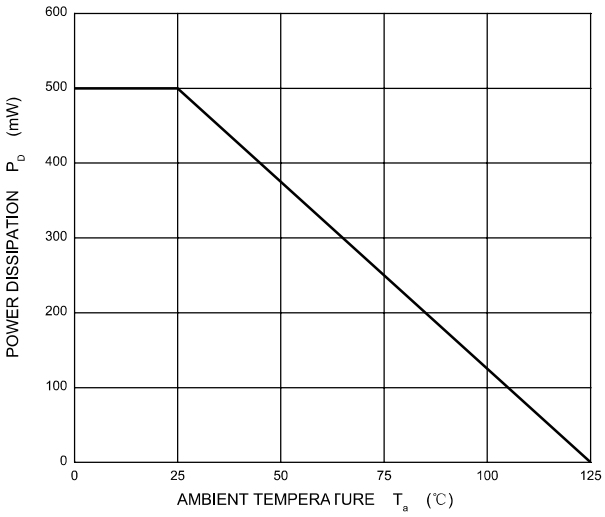
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



Marking

Type number	Marking code
BAT46W	S9