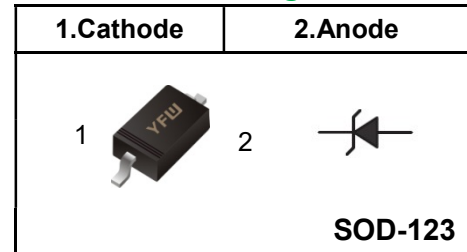


SCHOTTKY BARRIER RECTIFIERS
FEATURES

- ◆ High breakdown voltage
- ◆ Low turn-on voltage
- ◆ Guard ring construction for transient protection

MECHANICAL DATA

- ◆ Case: SOD-123
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 16mg/0.00056oz

Pinning

Marking Code

BAT46W	S9
---------------	-----------

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	BAT46W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working peak reverse voltage	V_{RWM}	100	V
Continuous Forward 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 at 8.3ms	I_{FSM}	25	A
Power Dissipation	P_D	200	mW
Thermal resistance junction to ambient air	R_{thJA}	500	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbols	BAT46W	Units
Reverse Breakdown Voltage at $I_R=100\mu A$ (NOTE 2)	$V_{(BR)R}$	100	V
Maximum Forward Voltage (NOTE 2)	V_F	$I_{F1}=10\text{ m A}$	0.45
		$I_{F2}=250\text{ m A}$	1.0
Peak Reverse Current	I_R	$V_{R1}=1.5V$	0.3
		$V_{R2}=10V$	0.5
		$V_{R3}=50V$	1
		$V_{R4}=75V$	2
Diodes Capacitance	C_T	$V_R=0, f=1MHz$	20
		$V_R=1V, f=1MHz$	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

Fig.1 Power Derating Curve

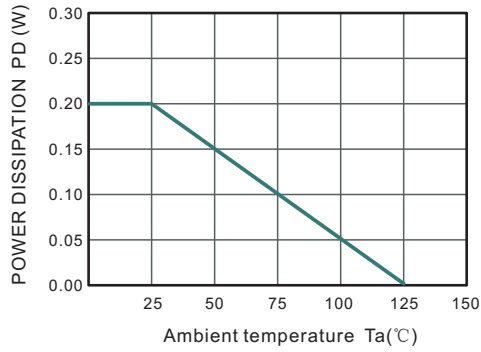


Fig.2 Typical Reverse Characteristics

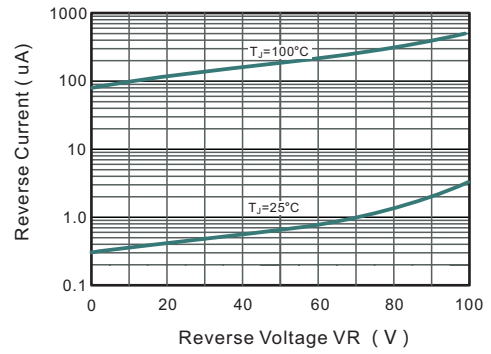


Fig.2 TYPICAL FORWARD VOLTAGE

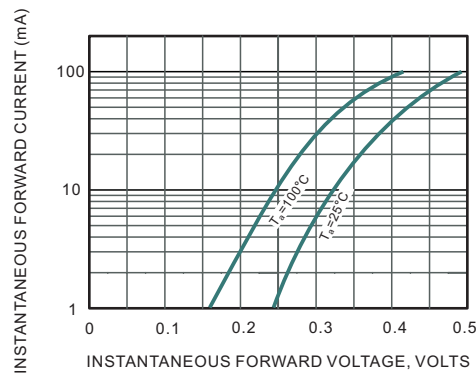


Fig.3 Typical Junction Capacitance

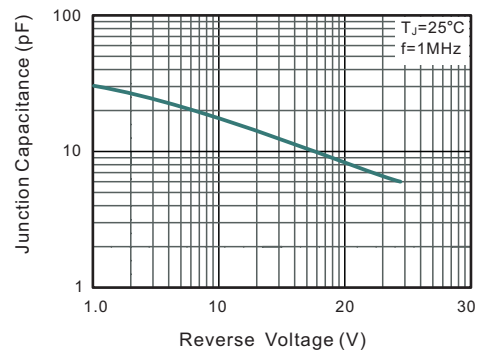


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

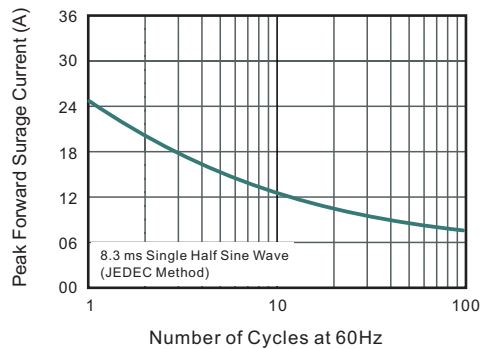
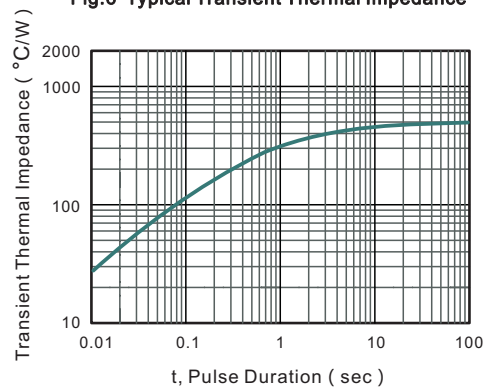


Fig.6 Typical Transient Thermal Impedance



Ordering information

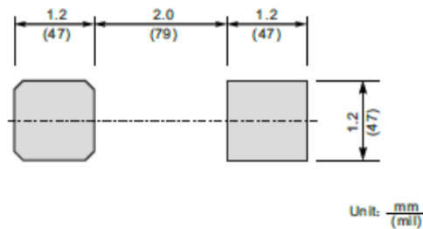
Package	Packing Description	Packing Quantity
SOD-123	Tape/Reel, 7"reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	51
C	0.09	0.22	3.5	8.7
D	1.5	1.8	59	71
E	2.5	2.8	98	110
E1	3.6	3.9	142	154
b	0.5	0.7	20	28
L1	0.25	0.45	10	18
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.