

SCHOTTKY BARRIER RECTIFIERS

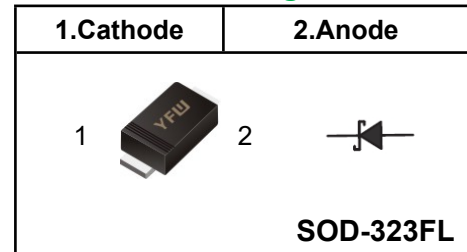
FEATURES

- ◆ High breakdown voltage
- ◆ Low turn-on voltage
- ◆ Guard ring construction for transient protection
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SOD-323FL
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 4.5mg / 0.00016oz

Pinning



Marking Code

BAT46WL	S9
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Absolute Maximum Ratings at 25°C

Parameter	Symbols	BAT46WL	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)@ tp < 1.0s, Duty Cycle < 50%	I_{FRM}	350	mA
Non-reptitive 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	BAT46WL	Units
Reverse Breakdown Voltage at IR=100μA(NOTE 2)	V_{(BR)R}	100	V
Maximum Forward Voltage (NOTE 2)	V_F	IF1=10 m A	0.45
		IF2= 250 m A	1.0
Peak Reverse Current	I_R	VR1=1.5V	0.3
		VR2=10V	0.5
		VR3=50V	1
		VR4=75V	2
Diodes Capacitance	C_T	VR=0,f=1MHz	20
		VR=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.

Fig.1 Power Derating Curve

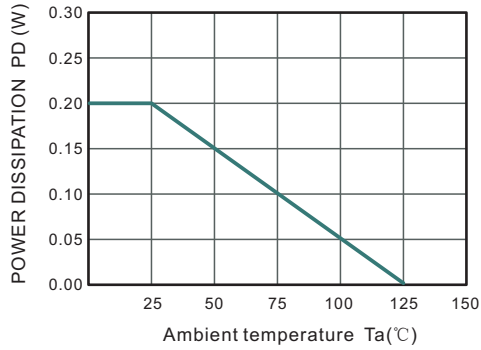


Fig.2 Typical Reverse Characteristics

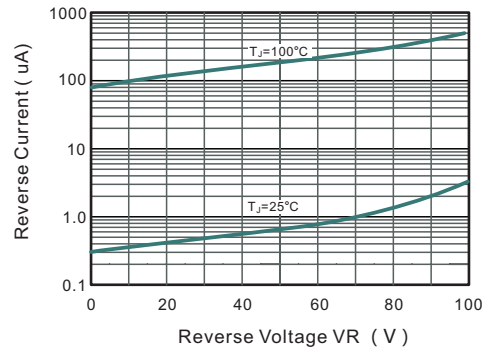


Fig.2 TYPICAL FORWARD VOLTAGE

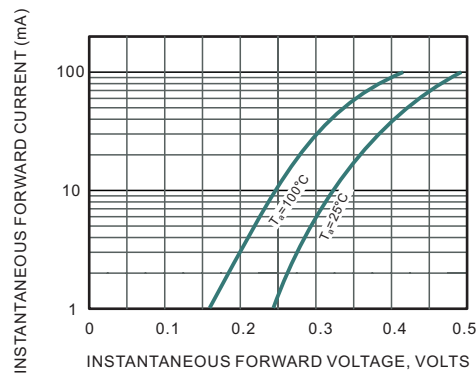


Fig.3 Typical Junction Capacitance

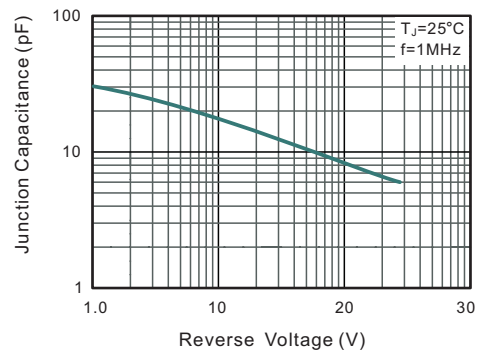


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

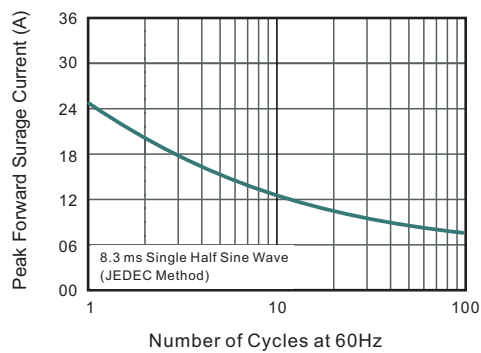
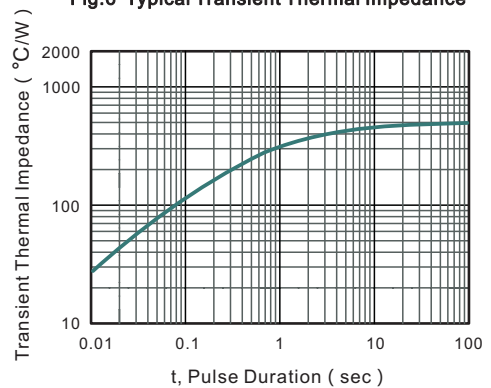


Fig.6 Typical Transient Thermal Impedance



Ordering information

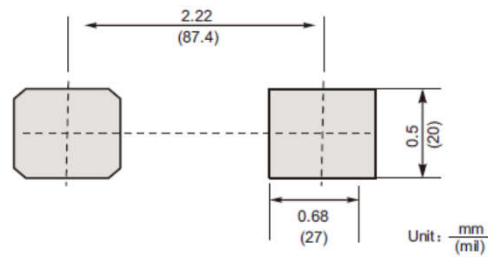
Package	Packing Description	Packing Quantity
SOD-323FL	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-323FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.70	0.90	28	36
B	0.20	0.40	8	16
C	0.027	0.227	1	9
D	1.15	1.35	45	53
L	0.38	0.58	15	23
E	1.70	1.90	67	75
HE	2.30	2.70	91	67
∠	9°			

The recommended mounting pad size



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