



BAT43W

Schottky Barrier Rectifiers

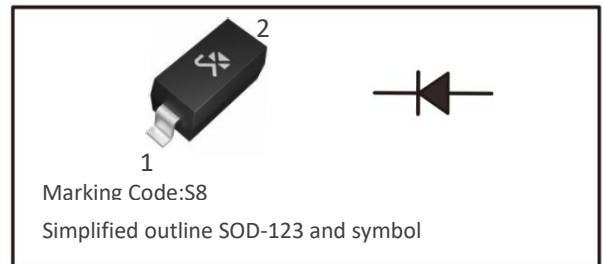
Reverse Voltage - 30V
Forward Current - 0.2A

Features

- Low Forward Voltage Drop
- Fast Switching

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings@ $T_a = 25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current@ $t < 1s$	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current@ $t < 10ms$	I_{FSM}	2	A
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55~+125	$^{\circ}\text{C}$

Electrical Characteristics@ $T_a = 25^{\circ}\text{C}$, unless specified otherwise

Parameter	Symbol	Test Condition	Min	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	30	-	V
Peak Reverse Current	I_R	$V_R = 25\text{V}$	-	500	nA
Forward Voltage	V_F	$I_F = 2\text{mA}$	0.26	0.33	V
		$I_F = 15\text{mA}$	-	0.45	V
		$I_F = 200\text{mA}$	-	1	
Total Capacitance	C_T	$V_R = 1\text{V}, f = 1\text{MHz}$	-	10	pF
Reveres Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 * I_R, R_L = 100\Omega$	-	5	ns



Typical Characteristics

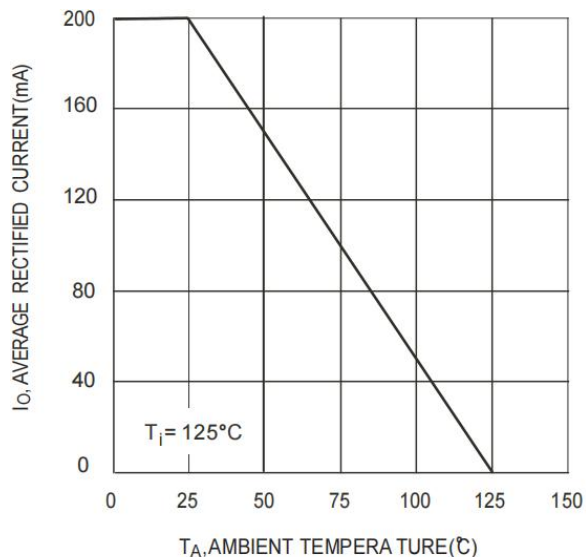


FIG. 1 Forward Current Derating Curve

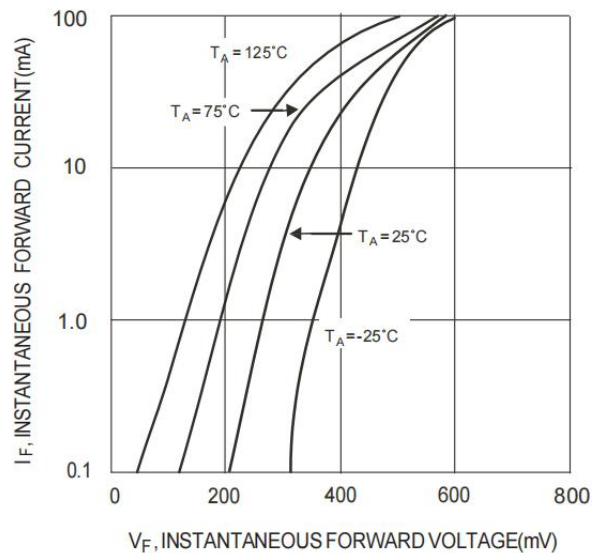


FIG. 2 Typical Forward Characteristics

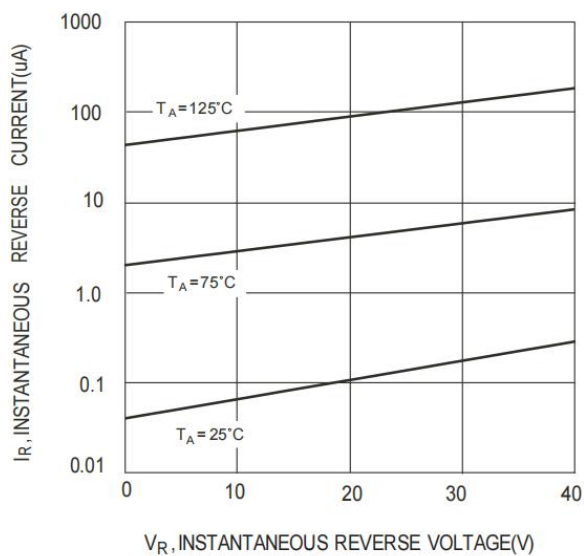


FIG. 3 Typical Reverse Characteristics

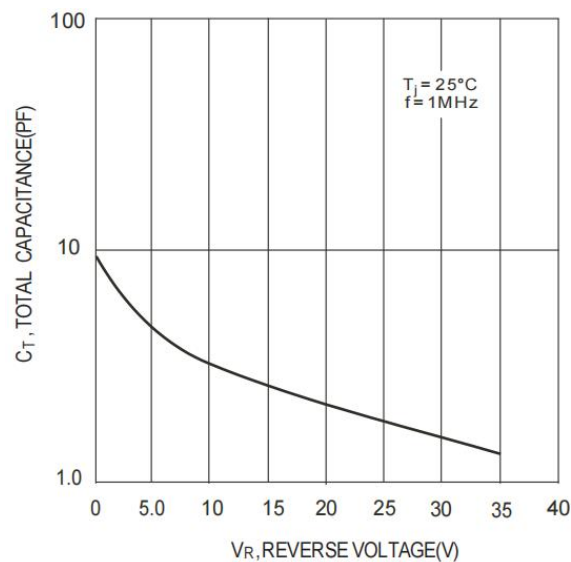


FIG. 4 Total Capacitance vs. Reverse Voltage

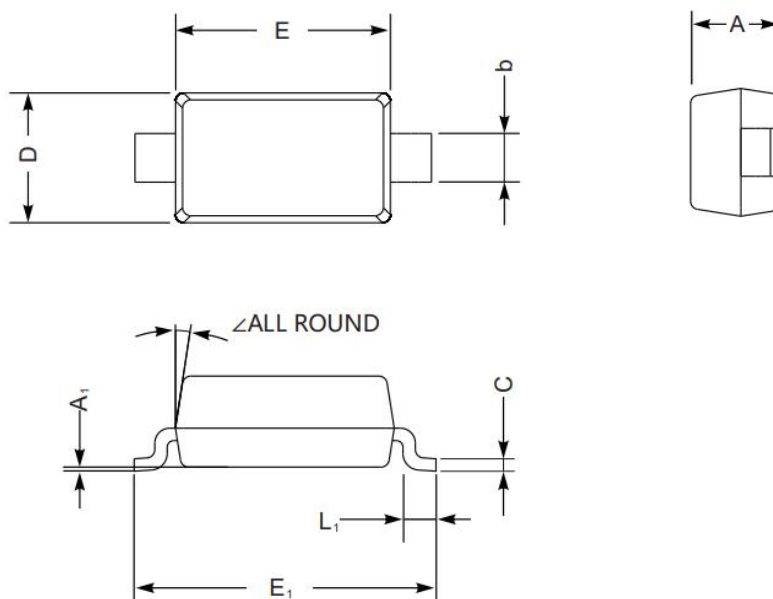


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Package Information

SOD-123

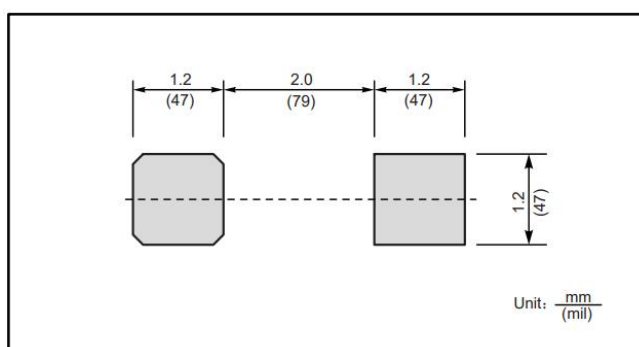
Dimensions in mm



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size





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