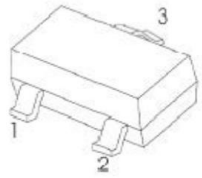
迈拓电子
MAITUO ELECTRONIC

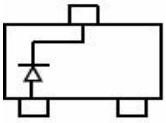
BAT854W/AW/CW/SW

■ Features

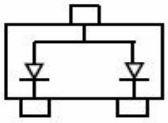
- Very low forward voltage
- Very low reverse current
- Guard ring protected
- Very small SMD package.



SOT323



BAT854W



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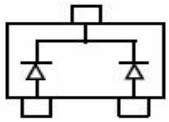
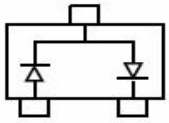


BAT854CW



BAT854SW

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Conditions	Min	Max	Unit
Continuous reverse voltage	V_R			40	V
Continuous forward current	I_F			200	mA
Repetitive peak forward current	I_{FRM}	tp ⩽ 1 s; d ⩽ 0.5		300	mA
Non-repetitive peak forward current	I_{FSM}	t = 8.3 ms half sinewave;JEDEC method		1	A
Storage temperature	T_{stg}		-65	+150	℃
Junction temperature	T_j			150	℃
Operating ambient temperature	T_{amb}		-65	+150	℃
Thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$			625	K/W

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Conditions	Typ	Max	Unit
Forward voltage	V_F	I_F = 0.1 mA	200		mV
		I_F = 1 mA	260		
		I_F = 10 mA	340		
		I_F = 30 mA		420	
		I_F = 100 mA		550	
Continuous reverse current	I_R	V_R = 25 V; Note 1		0.5	μA
Diode capacitance	C_d	f = 1 MHz; V_R = 1 V		20	pF

Note

1. Pulse test: t_p < 300 μs; δ ⩽ 0.02.

■ Marking

Type	BTA854W	BAT854AW	BAT854CW	BAT854SW
Marking	81	82	83	84

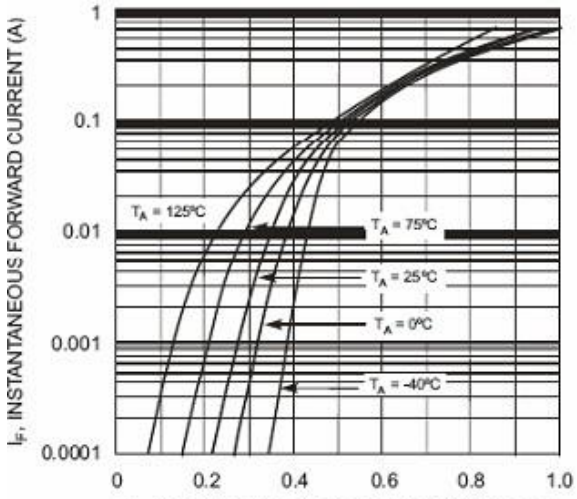


Fig. 1 Forward Characteristics

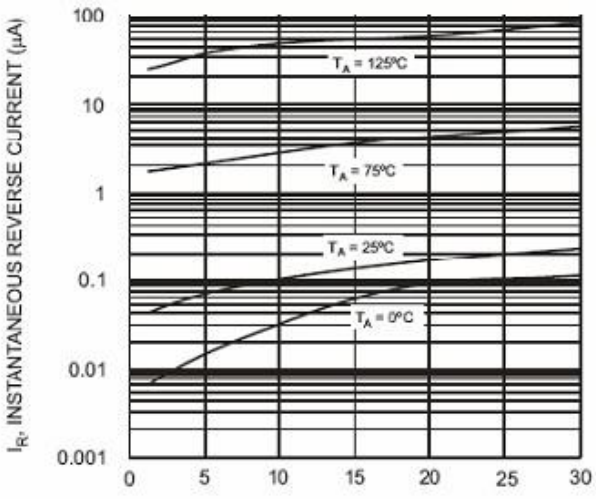


Fig. 2 Typical Reverse Characteristics

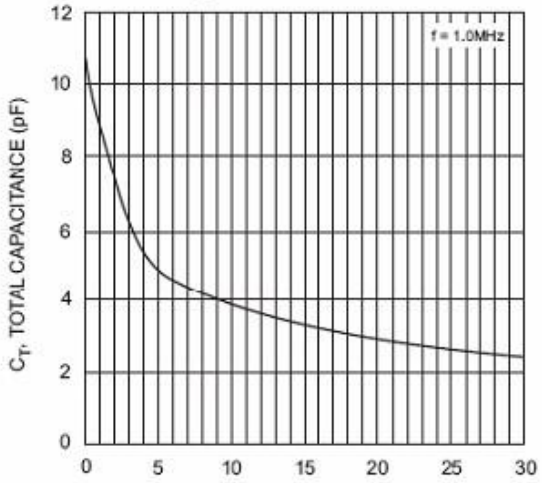


Fig. 3 Typical Capacitance vs. Reverse Voltage

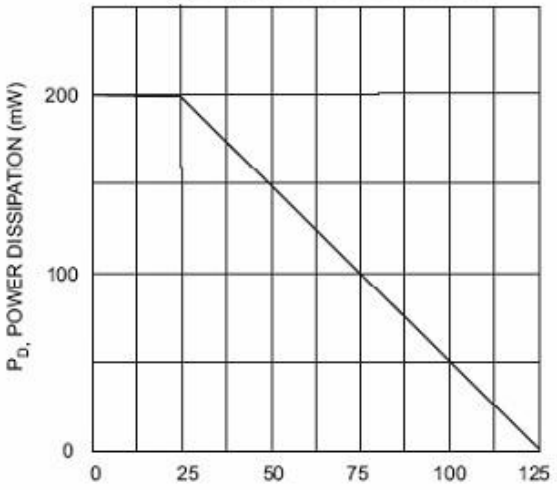


Fig. 4 Power Derating Curve

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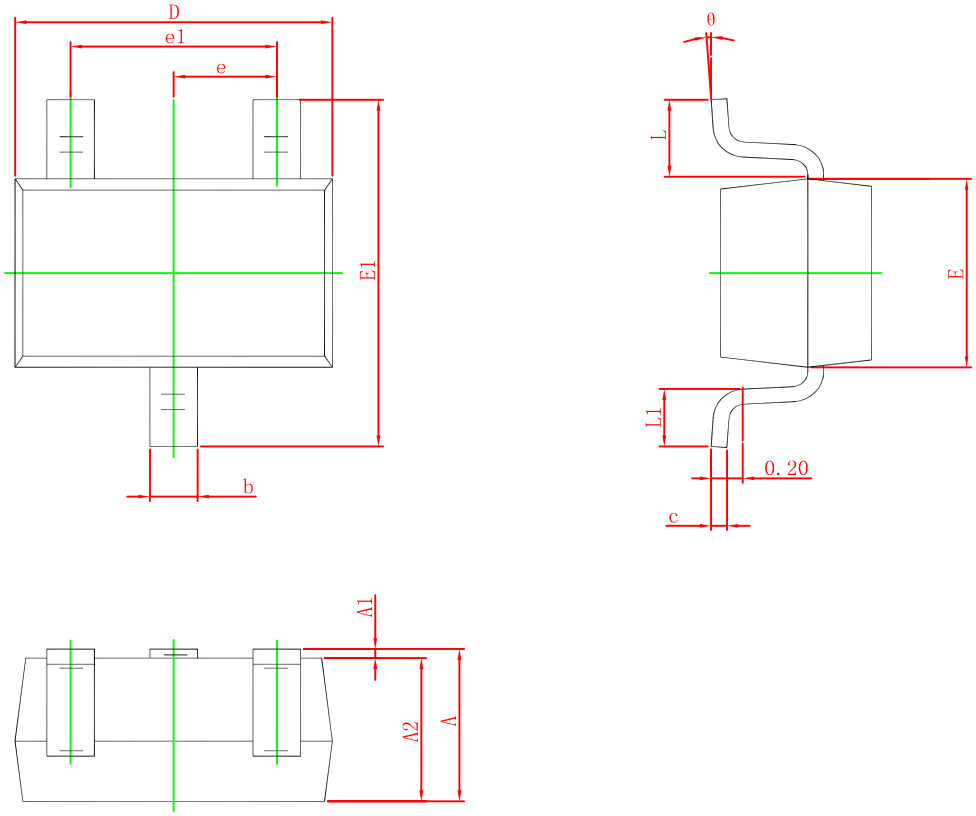
SOT323 **PACKAGE OUTLINE DIMENSIONS**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°