

BAT54DW / ADW / BDW / CDW / SDW / RDW

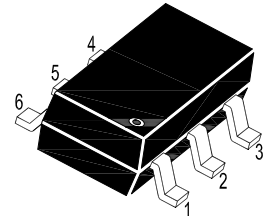
Surface Mount Schottky Barrier Diode

Features

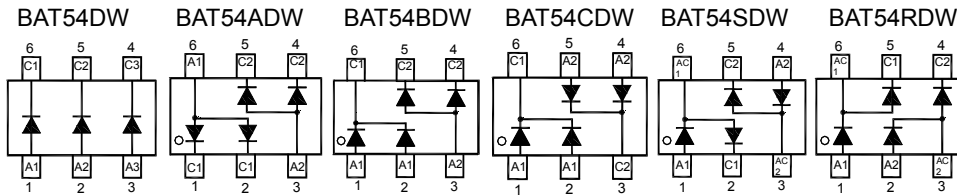
- Low forward voltage

Applications

- Ultra high-speed switching
- Voltage clamping
- Line termination



Marking Code
 BAT54DW:C2 BAT54ADW:C3
 BAT54BDW:C7 BAT54CDW:C4
 BAT54SDW:C5 BAT54RDW:C6
 SOT-363 Plastic package



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current ($t_p = 10$ ms)	I_{FSM}	600	mA
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction Ambient	R_{thJA}	625	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 0.1$ mA at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 30$ mA at $I_F = 100$ mA	V_F	-	240 320 400 500 800	mV
Reverse Breakdown Voltage at $I_R = 100$ μA	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 25$ V	I_R	-	2	μA
Total Capacitance at $V_R = 1$ V, $f = 1$ MHz	C_T	-	10	pF
Reverse Recovery Time at $I_F = 10$ mA through $I_R = 10$ mA to $I_R = 1$ mA, $R_L = 100$ Ω	t_{rr}	-	5	ns

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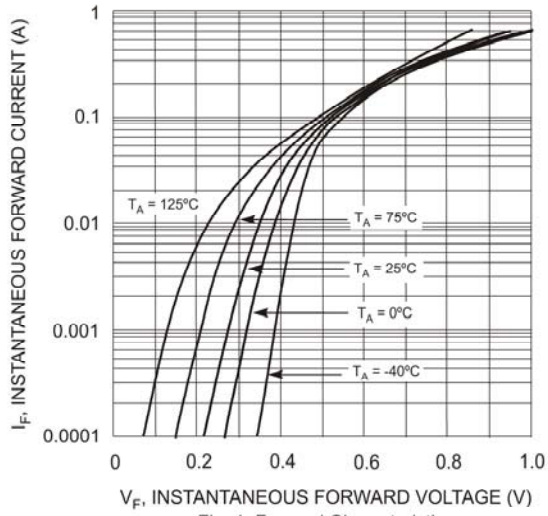


Fig. 1 Forward Characteristics

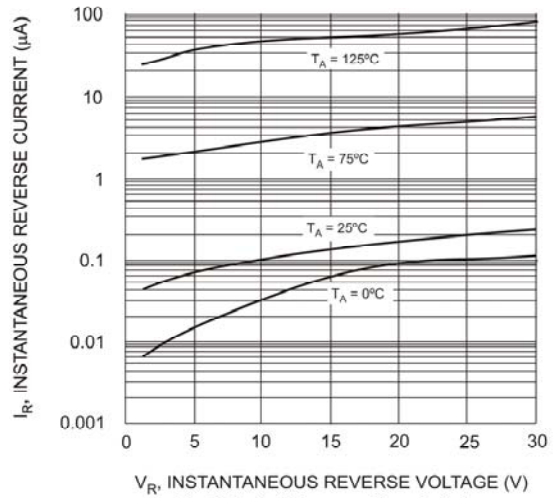


Fig. 2 Typical Reverse Characteristics

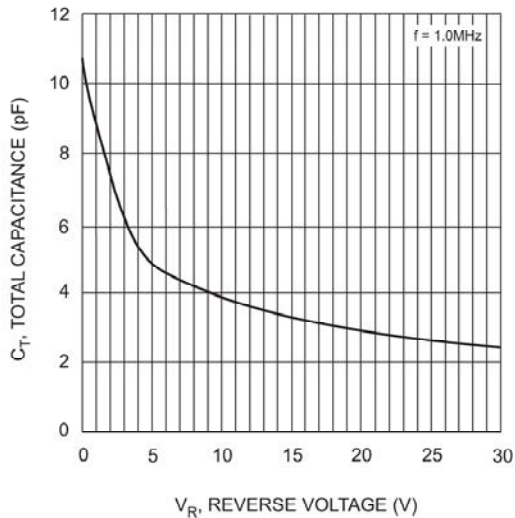


Fig. 3 Typical Capacitance vs. Reverse Voltage

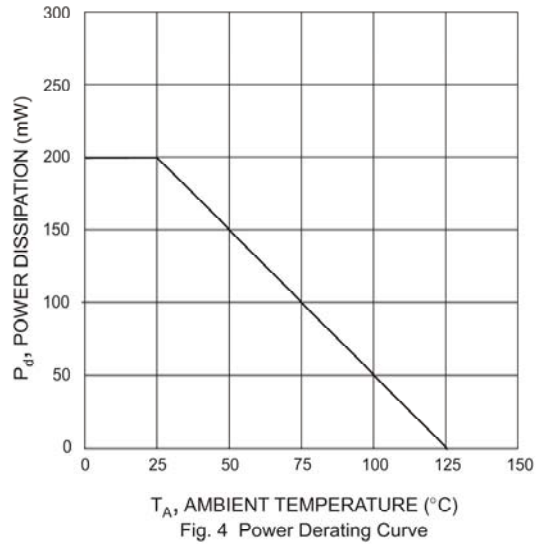
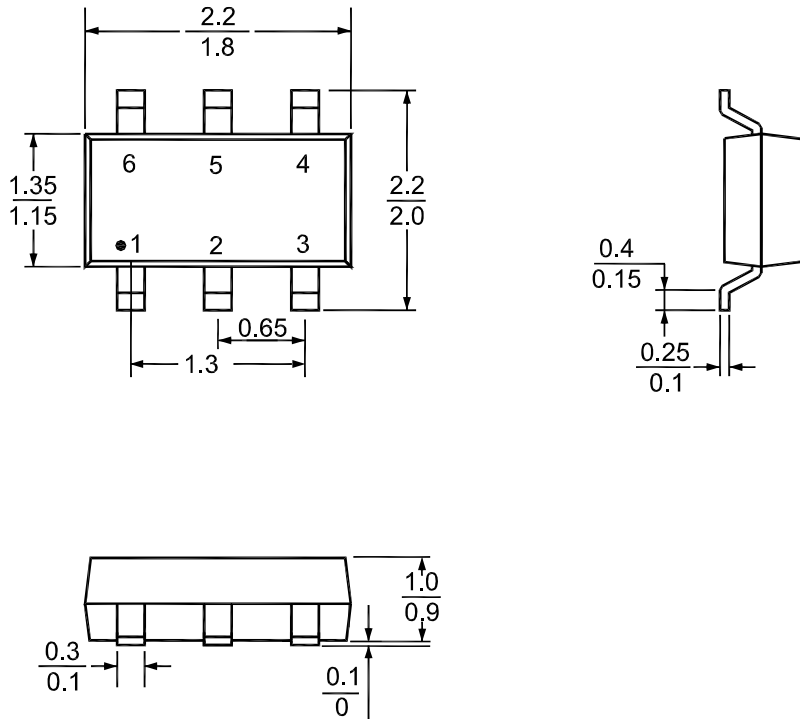


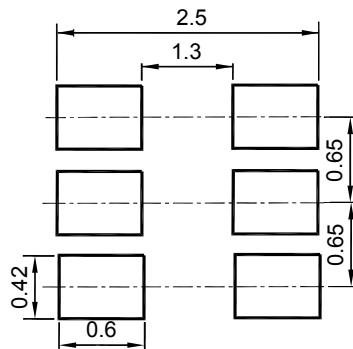
Fig. 4 Power Derating Curve

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SOT-363 Package Outline Dimensions (Units: mm)



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-363	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

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