

# BAT54DW / ADW / BDW / CDW / SDW / RDW-HAF

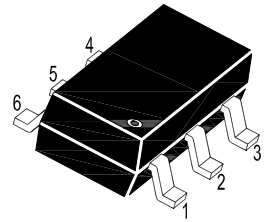
## Surface Mount Schottky Barrier Diode

### Features

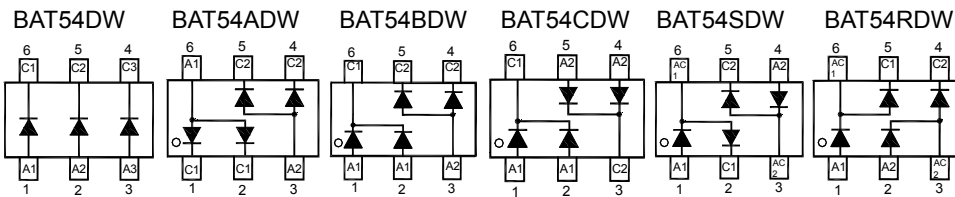
- Low forward voltage
- Halogen and Antimony Free(HAF), RoHS compliant

### 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 $I_R = 100$ $\mu\text{A}$	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 25$ V	$I_R$	-	2	$\mu\text{A}$
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, $R_L = 100$ $\Omega$	$t_{rr}$	-	5	ns

**TOP DYNAMIC**

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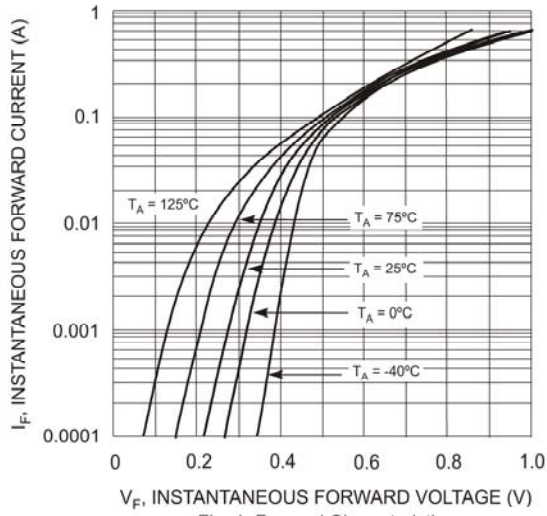


Fig. 1 Forward Characteristics

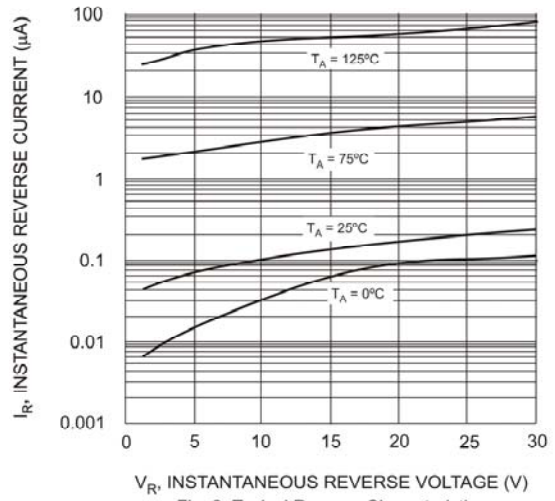


Fig. 2 Typical Reverse Characteristics

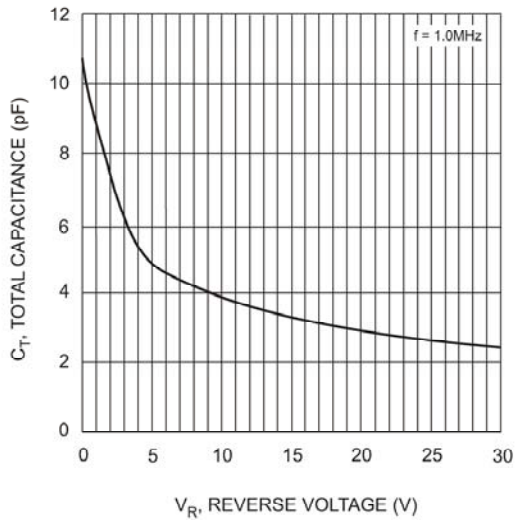


Fig. 3 Typical Capacitance vs. Reverse Voltage

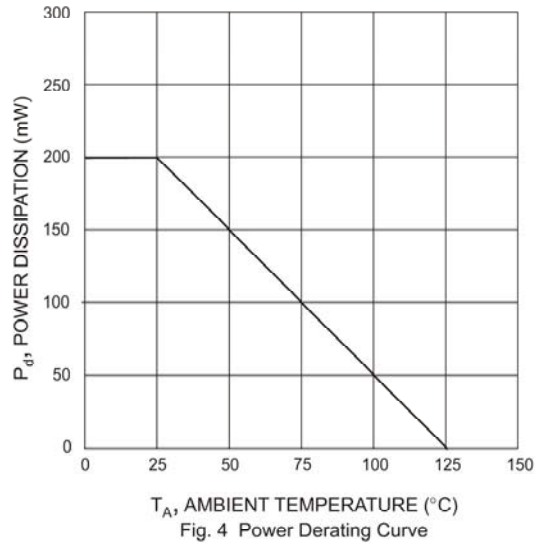
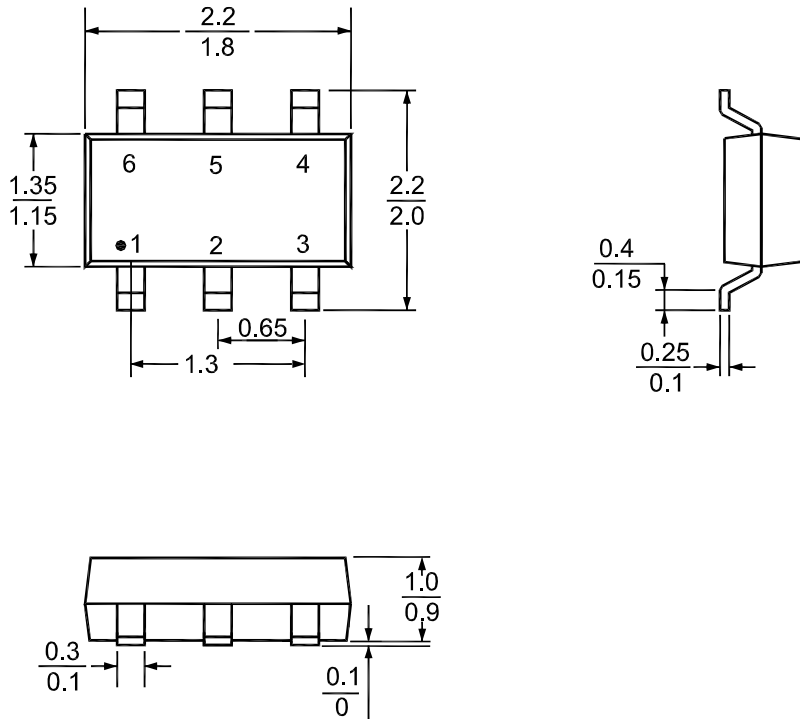


Fig. 4 Power Derating Curve

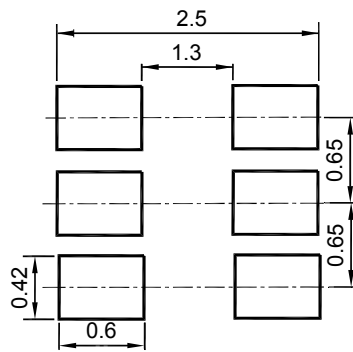
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## SOT-363 Package Outline Dimensions (Units: mm)



## 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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