

SMD Schottky Barrier Diode

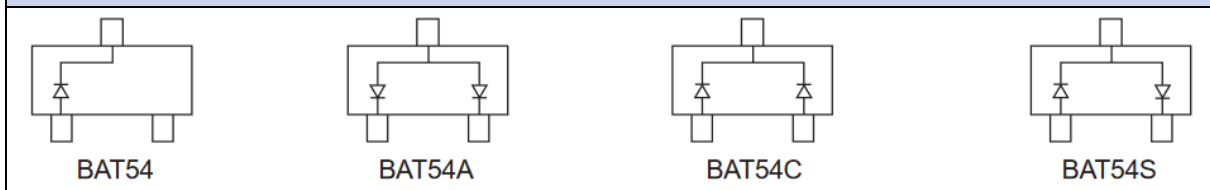
Primary characteristics			
Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	30	V
Continuous Forward Current	I_F	200	mA
Power Dissipation	P_D	200	mW

Features

- **SOT-23** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection
- Terminals: Solderable per MIL-STD-202, Method 208

Case dimensions													
SOT-23 (TO-236AB)													
Unit	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.0 ±0.1	0.1	0.43 ±0.05	0.12 ±0.03	2.9 ±0.1	1.3 ±0.1	1.9	0.95	2.3 ±0.2	0.3 ±0.15	0.5 ±0.05	0.2	0.1

Part numbers and pin configuration



Maximum ratings and electrical characteristics (T _a = 25°C)			
Characteristics	Symbol	Value Typ.	Unit
Peak repetitive reverse voltage	V_{RRM}	30	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
Forward continuous current	I_F	200	mA
Repetitive peak forward current	I_{FM}	300	mA
Forward surge current	I_{FSM}	600	mA
Power dissipation ¹⁾	P_D	200	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	°C/W
Operating and storage temperature range	T _j , T _{STG}	-65 ~ 125	°C

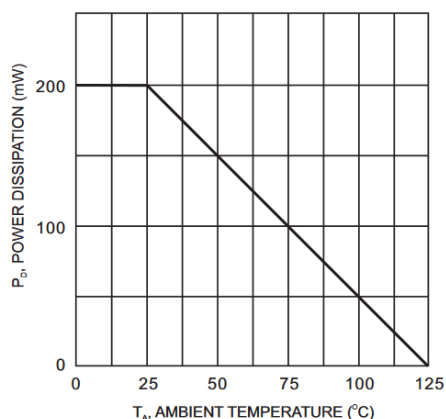
Absolute maximum ratings and electrical characteristics (T_a=25°C)

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Reverse breakdown voltage ¹⁾	V _{(BR)R}	30	-	-	V
Reverse leakage current ¹⁾	I _R	-	-	2.0	µA
Forward voltage ¹⁾	I _F = 0.1mA	-	-	240	mV
	I _F = 1.0mA			320	
	I _F = 10mA			400	
	I _F = 30mA			500	
	I _F = 100mA			1000	
Junction capacitance V _R =0, f=1.0MHz	C _J	-	-	10	pF
Reverse recovery time ²⁾	t _{rr}	-	-	5.0	nS

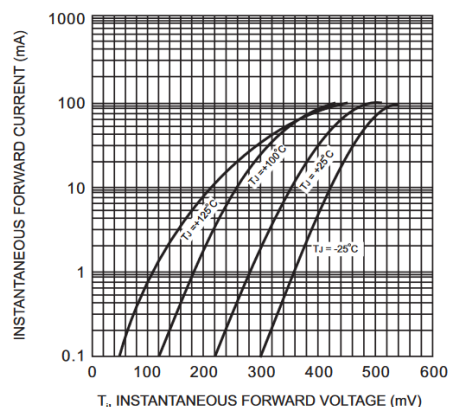
Notes:

- 1) Short duration pulse test used to minimize self-heating effect
- 2) Reverse recovery test conditions: I_F=10mA through I_R=10mA to I_R=1.0mA, R_L=100Ω

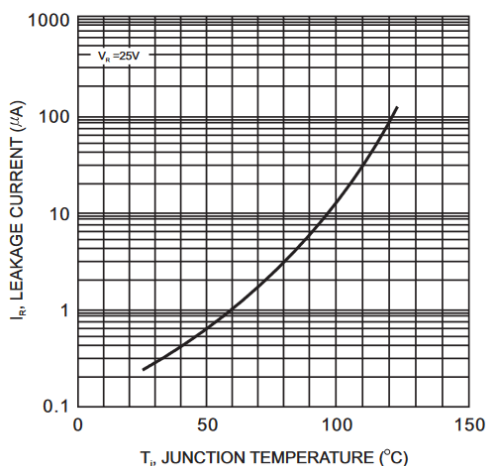
Power derating curve

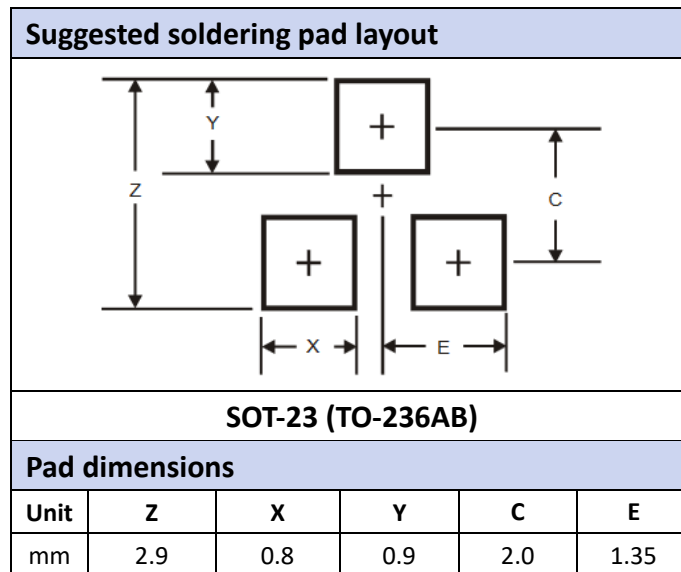


Typical forward characteristics



Typical reverse characteristics





Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
BAT54/A/C/S	SOT-23	3000 pcs / reel	---

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