

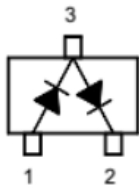
SMD Switching Diode

Primary characteristics			
Parameter	Symbol	Value	Unit
Continuous reverse voltage	V_R	75	V
Continuous Forward Current	Single diode Double diode	I_F	mA
Power Dissipation	P_D	200	mW

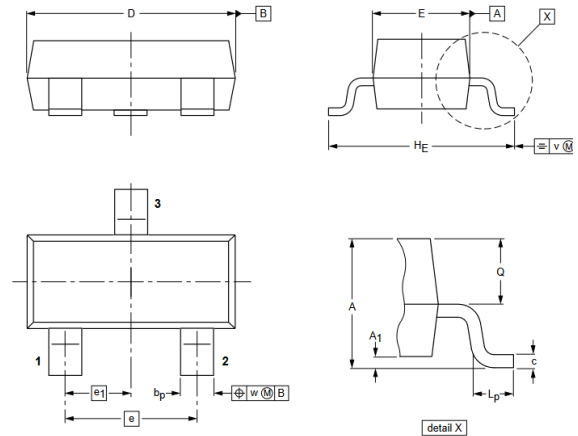
Features

- **SOT-23** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- Fast reverse recovery time

Pin configuration



Case dimensions



SOT-23 (TO-236AB)

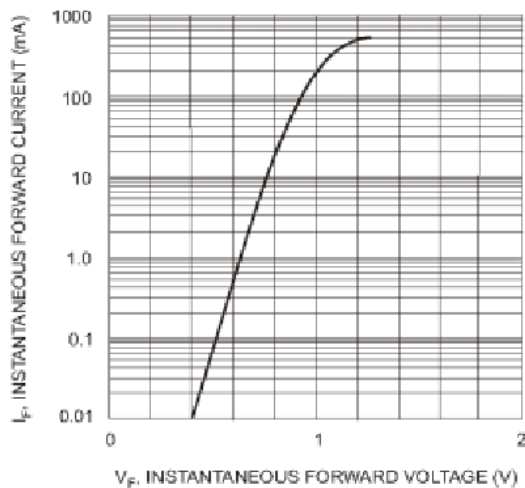
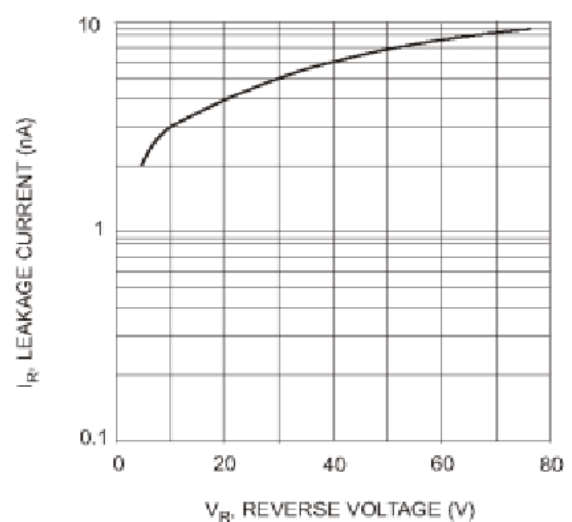
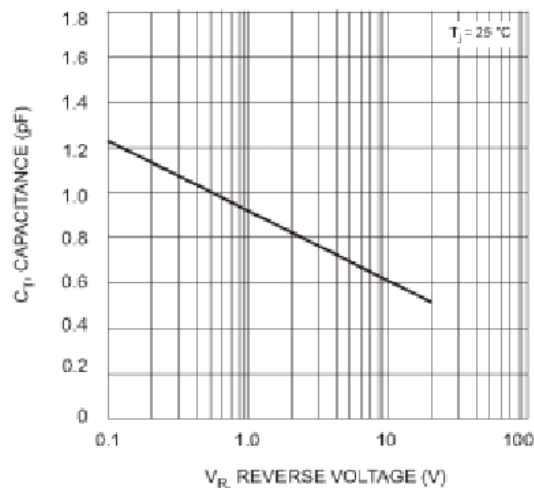
Unit	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.0 ±0.1	0.1	0.43 ±0.05	0.12 ±0.03	2.9 ±0.1	1.3 ±0.1	1.9	0.95	2.3 ±0.2	0.3 ±0.15	0.5 ±0.05	0.2	0.1

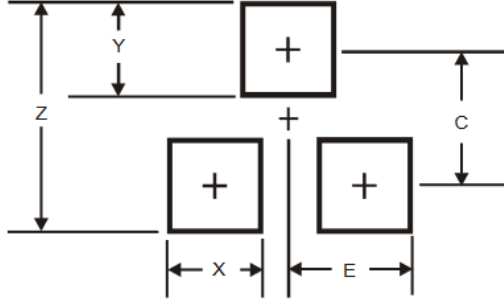
Maximum ratings and electrical characteristics (T_a = 25°C)

Characteristics		Symbol	Value	Unit
Maximum peak repetitive reverse voltage		V_{RRM}	85	V
Continuous reverse voltage		V_R	75	V
Continuous forward current	Single diode load	I_F	125	mA
	Double diode load		215	
Repetitive peak forward current		I_{FRM}	450	mA
Forward surge current	t = 1s	I_{FSM}	0.5	A
	t = 1ms		1.0	
	t = μ s		4.5	
Power dissipation		P_D	350	mW
Forward voltage @ I_F	$I_F = 1.0\text{mA}$	V_F	0.715	V
	$I_F = 10\text{mA}$		0.855	
	$I_F = 50\text{mA}$		1.0	
	$I_F = 150\text{mA}$		1.25	

Maximum ratings and electrical characteristics ($T_a = 25^\circ\text{C}$)

Characteristics		Symbol	Value	Unit
Reverse current @ V_R	$V_R = 25\text{V}$	I_R	0.03	μA
	$V_R = 75\text{V}$		1.0	
	$V_R = 25\text{V}, T_J = 150^\circ\text{C}$		30	
	$V_R = 75\text{V}, T_J = 150^\circ\text{C}$		50	
Typical junction capacitance	$V_R = 4.0\text{V}, f = 1.0\text{MHz}$	C_J	1.5	pF
Maximum reverse recovery time		T_{rr}	4.0	ns
Junction and storage temperature range		T_J, T_{STG}	$-65 \sim 150$	$^\circ\text{C}$

Forward characteristics

Typical leakage current vs. reverse voltage

Typical total capacitance vs. reverse voltage


Suggested soldering pad layout					
					
SOT-23 (TO-236AB)					
Pad dimensions					
Unit	Z	X	Y	C	E
mm	2.9	0.8	0.9	2.0	1.35

Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
BAV99	SOT-23	3000 pcs / reel	---

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