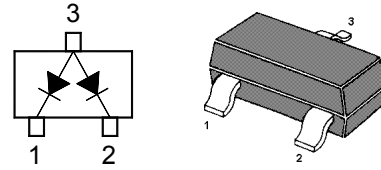


BAW56

Silicon Epitaxial Planar Switching Diode

Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



Marking Code: A1
SOT-23 Plastic Package

Applications

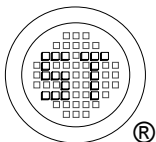
- Ultra high speed switching application

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Forward Current (DC)	Single Diode Loaded	215	mA
	Double Diode Loaded	125	
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	at $t = 1\text{ s}$	0.5
		at $t = 1\text{ ms}$	1
		at $t = 1\text{ }\mu\text{s}$	4
Power Dissipation	P_{tot}	350	mW
Operating Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

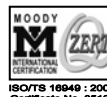
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage	V_F	at $I_F = 1\text{ mA}$	715
		at $I_F = 10\text{ mA}$	855
		at $I_F = 50\text{ mA}$	1
		at $I_F = 150\text{ mA}$	1.25
Reverse Current	I_R	at $V_R = 25\text{ V}$	30
		at $V_R = 75\text{ V}$	1
		at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$	30
		at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$	50
Diode Capacitance	C_d	2	pF
Reverse Recovery Time	t_{rr}	4	ns
at $I_F = I_R = 10\text{ mA}, R_L = 100\text{ }\Omega$			



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 15/06/2009

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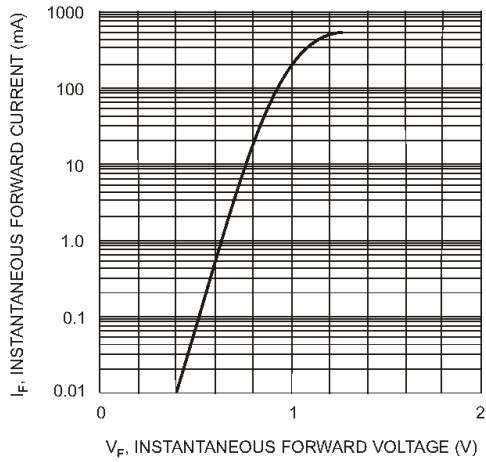


Fig. 1 Forward Characteristics

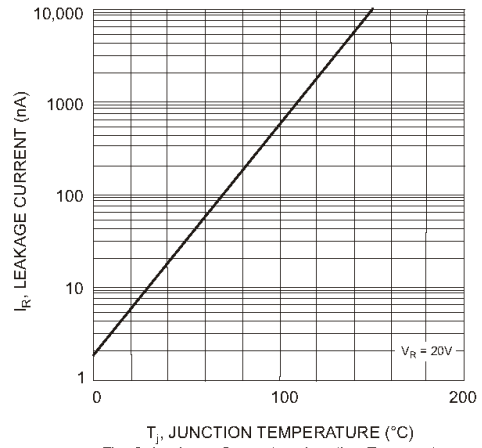


Fig. 2 Leakage Current vs Junction Temperature

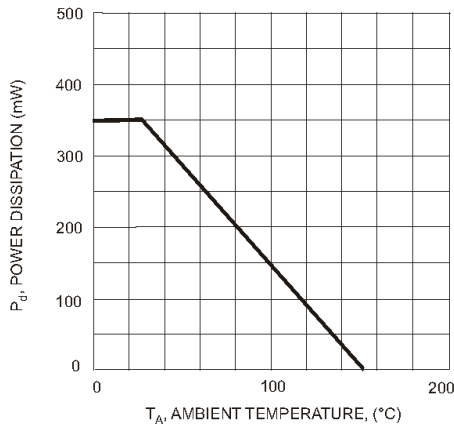
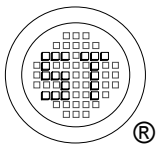


Fig. 3 Power Derating Curve, total package



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