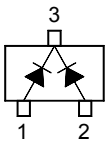
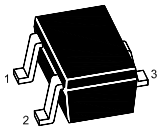
BAV70W

SILICON EPITAXIAL PLANAR SWITCHING DIODE

Features

- Fast switching diode
- Ultra small surface mount package





SOT-323 Plastic Package
Marking Code: **A4**

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	V
Reverse Voltage		V_R	75	V
Continuous Forward Current	Single diode loaded Double diode loaded	I_F	175 100	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-Repetitive Peak Forward Current	at t = 1 µs at t = 1 ms at t = 1 s	I_{FSM}	4 1 0.5	A
Power Dissipation		P_{tot}	200	mW
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_s	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{BR(R)}$	75	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 0.715 0.855 1 1.25	V
Reverse Leakage Current at V_R = 25 V at V_R = 75 V at V_R = 25 V, T_J = 150 °C at V_R = 75 V, T_J = 150 °C	I_R	 - - - -	 30 2.5 60 100	 nA µA µA µA
Diode Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	2	pF
Reverse Recovery Time at I_F = 10 mA to I_R = 10 mA, I_{rr} = 0.1 I_R, R_L = 100 Ω	t_{rr}	-	4	ns

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

ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 0506098

Dated : 15/05/2007

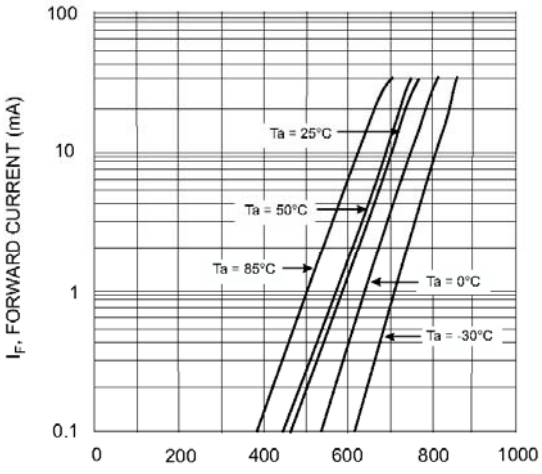


Fig. 1 Forward Current vs. Forward Voltage

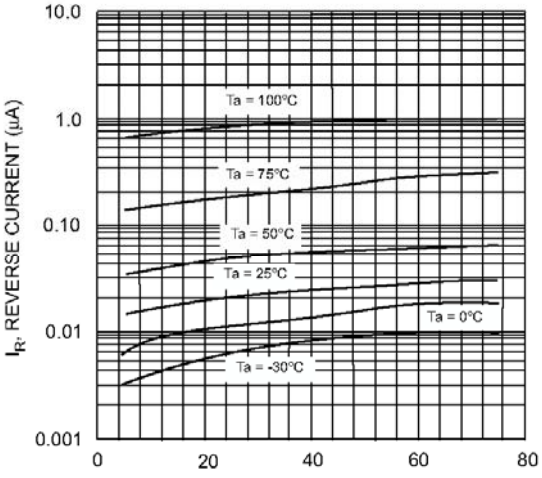


Fig. 2 Reverse Current vs Reverse Voltage

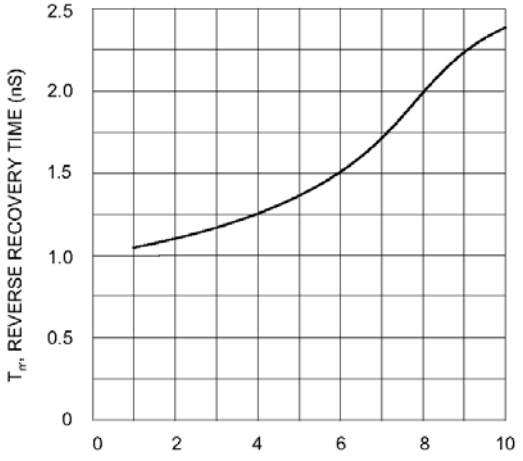


Fig. 3. Reverse Recovery Time vs. Forward Current

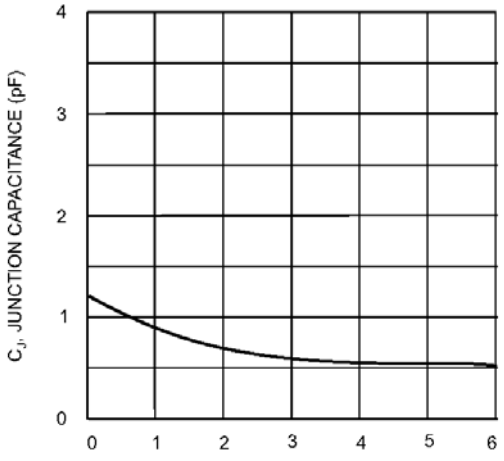


Fig. 4. Typical Junction Capacitance vs. Reverse Voltage