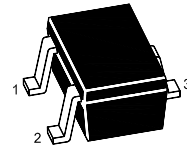
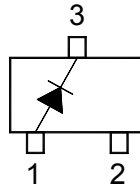


BAS16W

Silicon Epitaxial Planar Small Signal Diode

High Speed Switching Diode



SOT-323 Plastic Package

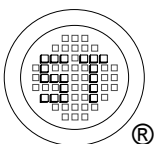
Marking Code: **A6**

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Continuous Forward Current (at $T_S = 90\text{ }^\circ\text{C}$)	I_F	155	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-repetitive Peak Forward Current at Square Wave; $T_J = 25\text{ }^\circ\text{C}$ Prior to Surge	I_{FSM}	$t = 1\text{ }\mu\text{s}$	4
		$t = 1\text{ ms}$	1
		$t = 1\text{ s}$	0.5
Total Power Dissipation (at $T_S = 90\text{ }^\circ\text{C}$)	P_{tot}	170	mW
Thermal Resistance from Junction to Soldering Point	R_{thj-s}	350	K/W
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 at $I_F = 1\text{ mA}$	V_F	715	mV
at $I_F = 10\text{ mA}$	V_F	855	mV
at $I_F = 50\text{ mA}$	V_F	1000	mV
at $I_F = 150\text{ mA}$	V_F	1250	mV
Reverse Current at $V_R = 25\text{ V}$	I_R	30	nA
at $V_R = 75\text{ V}$	I_R	1	μA
at $V_R = 25\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$	I_R	30	μA
at $V_R = 75\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$	I_R	50	μA
Diode Capacitance at $f = 1\text{ MHz}$	C_D	1.5	pF
Reverse Recovery Time when switched from $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}$, $R_L = 100\text{ }\Omega$; measured at $I_R = 1\text{ mA}$	t_{rr}	4	ns
Forward Recovery Voltage when switched from $I_F = 10\text{ mA}$, $t_r = 20\text{ ns}$	V_{fr}	1.75	V



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



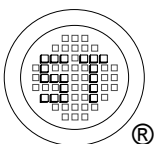
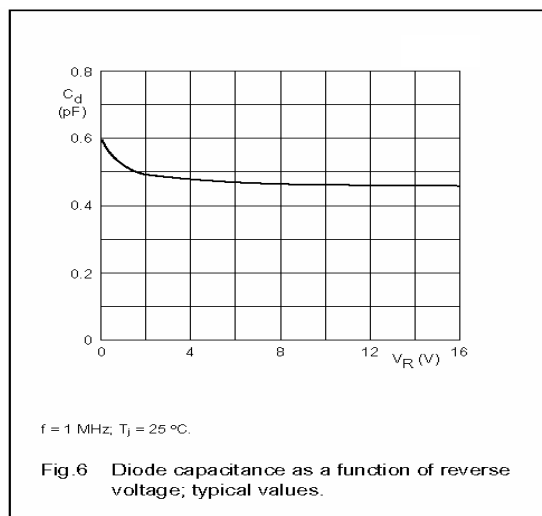
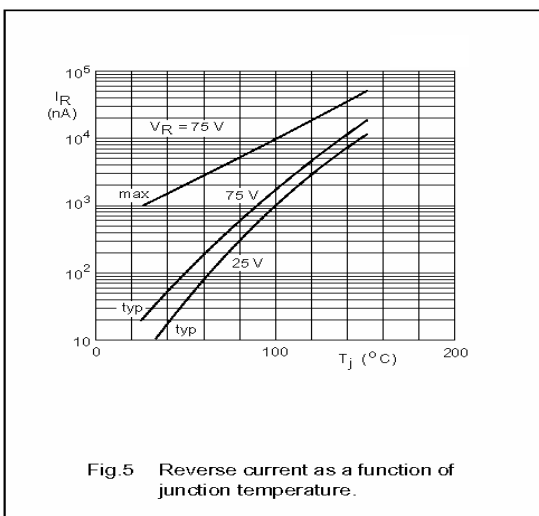
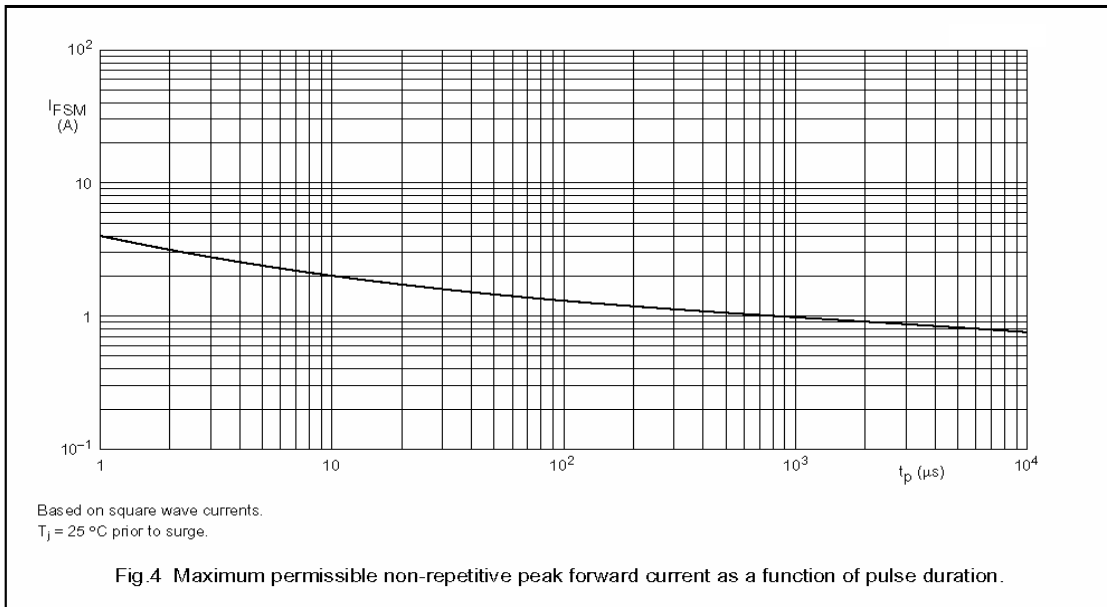
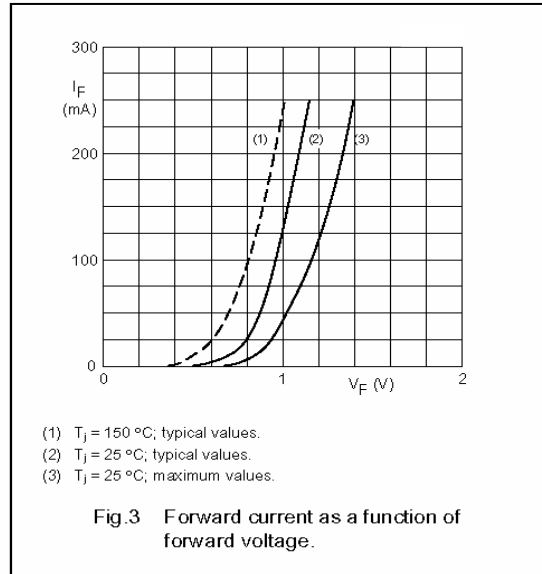
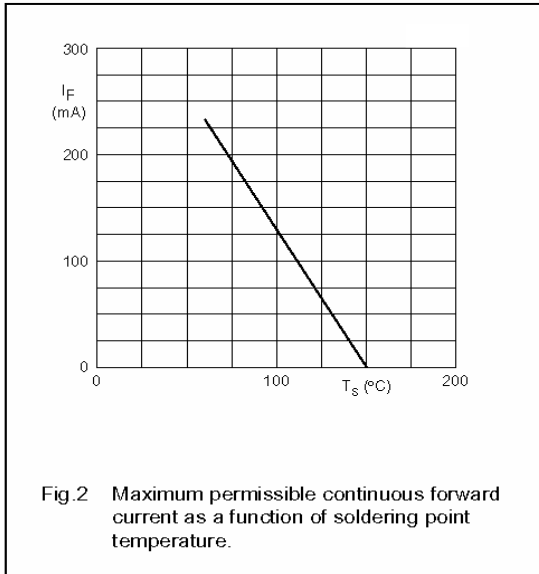
ISO 14001:2004
Certificate No. 71116



ISO 9001:2000
Certificate No. 0506098

Dated : 02/08/2006

BAS16W



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. 71116

ISO 9001:2000
 Certificate No. 0506098

Dated : 02/08/2006