

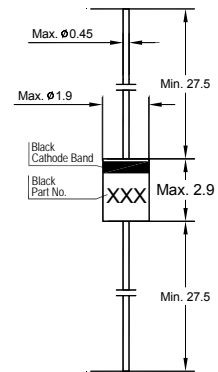
BAT86

SCHOTTKY BARRIER DIODE

Ultra high-speed switching, voltage clamping protection circuits and blocking applications

Features

- Low forward voltage
- Hermetically-sealed leaded glass package



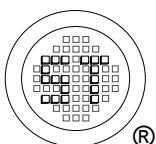
Glass Case DO-34
Dimensions in mm

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

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	50	V
Continuous Forward Current	I_F	200	mA
Average Forward Current ($V_{RWM} = 25\text{ V}$, $T_{amb} = 50\text{ }^\circ\text{C}$)	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current (at $t_p \leq 1\text{ s}$, $\delta \leq 0.5$)	I_{FRM}	500	mA
Non-repetitive Peak Forward Current (at $t_p \leq 10\text{ ms}$)	I_{FSM}	5	A
Operating Ambient Temperature Range	T_{amb}	- 65 to + 125	$^\circ\text{C}$
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_S	- 65 to + 150	$^\circ\text{C}$
Thermal Resistance from Junction to Ambient	R_{thja}	320	K/W

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 0.1\text{ mA}$	V_F	300	mV
at $I_F = 1\text{ mA}$	V_F	380	mV
at $I_F = 10\text{ mA}$	V_F	450	mV
at $I_F = 30\text{ mA}$	V_F	600	mV
at $I_F = 100\text{ mA}$	V_F	900	mV
Reverse Current at $V_R = 40\text{ V}$	I_R	5	μA
Diode Capacitance at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$	C_d	8	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$, $I_R = 10\text{ mA}$, $R_L = 100\ \Omega$	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 : 25/06/2007

Fig.1 Derating curve.

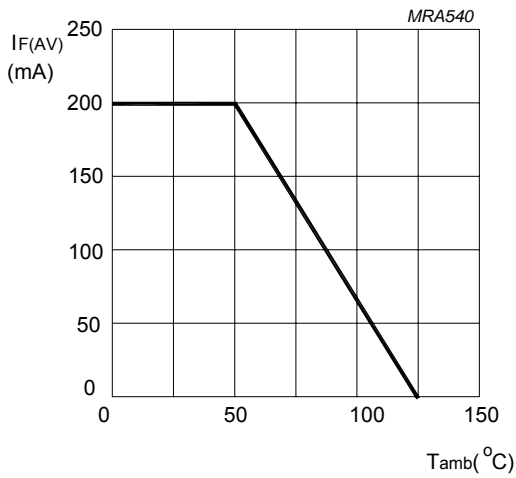


Fig.2 Forward current as a function of forward voltage; typical values.

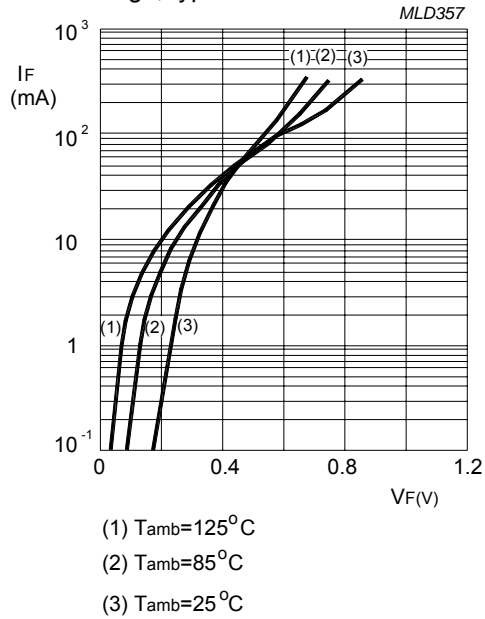


Fig.3 Reverse current as a function of reverse voltage; typical values.

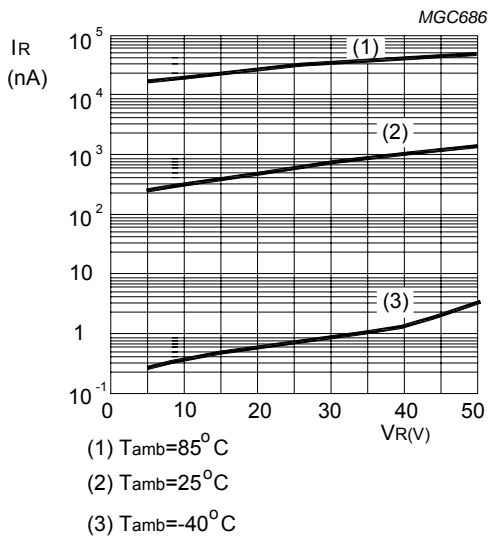
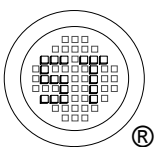
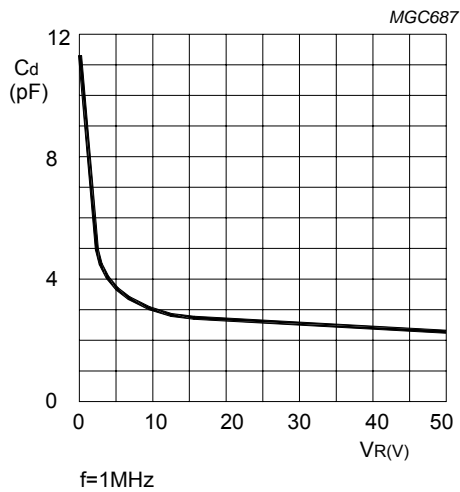


Fig.4 Diode capacitance as a function of reverse voltage; typical values.



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

