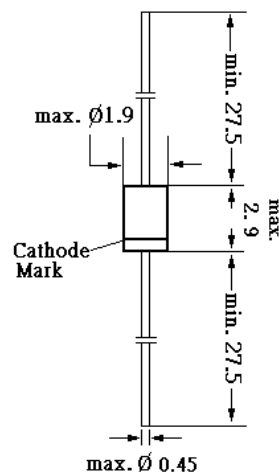


SCHOTTKY BARRIER DIODE

ULTRA HIGH-SPEED SWITCHING, VOLTAGE CLAMPING
PROTECTION CIRCUITS AND BLOCKING APPLICATIONS

Features

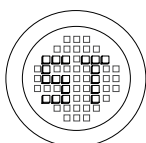
- Low forward voltage.
- Guard ring protected.
- Hermetically-sealed leaded glass package.



Glass case JEDEC DO-34
Dimensions in mm

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

Parameter	Symbol	Limits	Unit
Continuous reverse voltage	V_R	50	V
Continuous forward current	I_F	200	mA
Average forward current PCB mounting, lead length=4mm $V_{RWM} = 25\text{V}$, $a = 1.57$, $\delta = 0.5$, $T_{amb} = 50^\circ\text{C}$	$I_{F(AV)}$	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	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



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РАДИОТЕХ

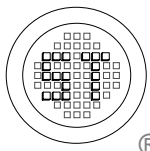
Тел.: (495) 795-0805
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BAT86

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

Parameter	Symbol	Min.	Typ.	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 (Note 1) 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

Note: (1) Pulse test: $t_p = 300\mu\text{s}$; $\delta = 0.02$



SEMTECH ELECTRONICS LTD.

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



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 550-1559-04-002-04

Dated : 31/12/2002

GRAPHICAL DATA

Fig.1 Derating curve.

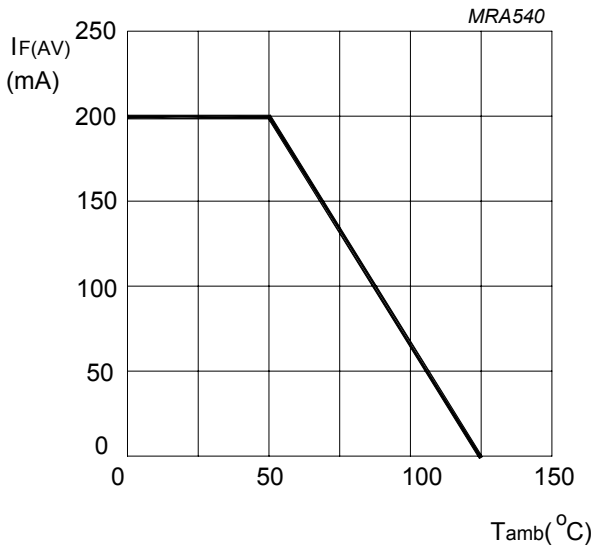


Fig.2 Forward current as a function of forward voltage; typical values.

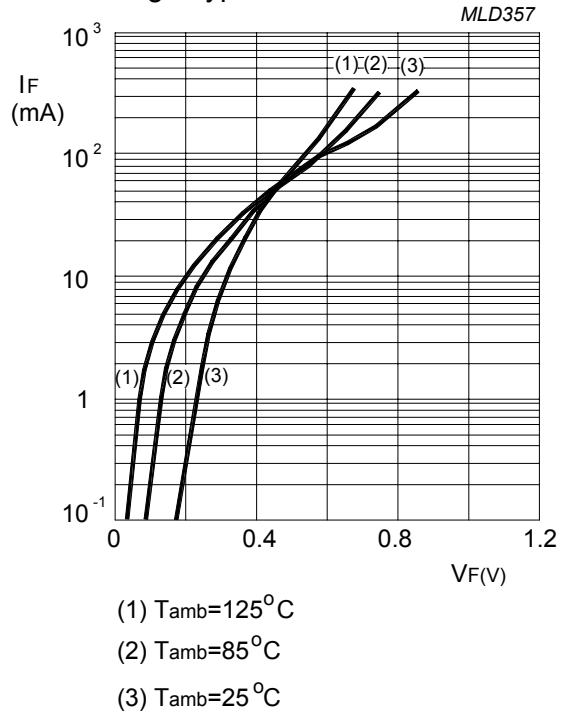


Fig.3 Reverse current as a function of reverse voltage; typical values.

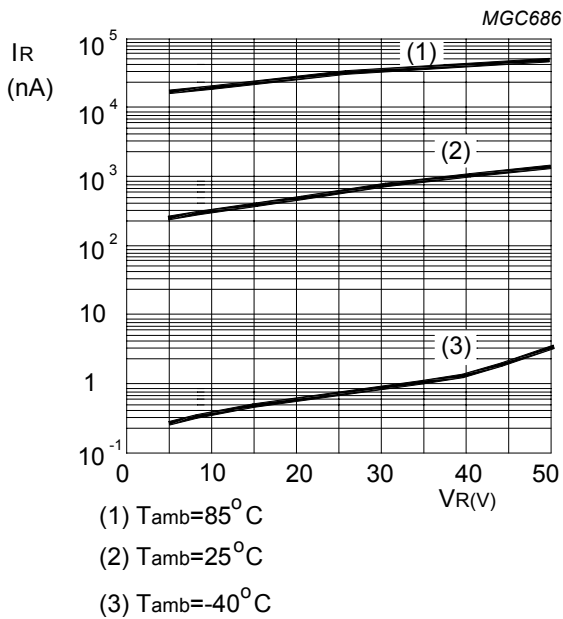
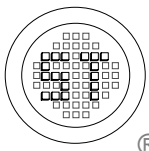
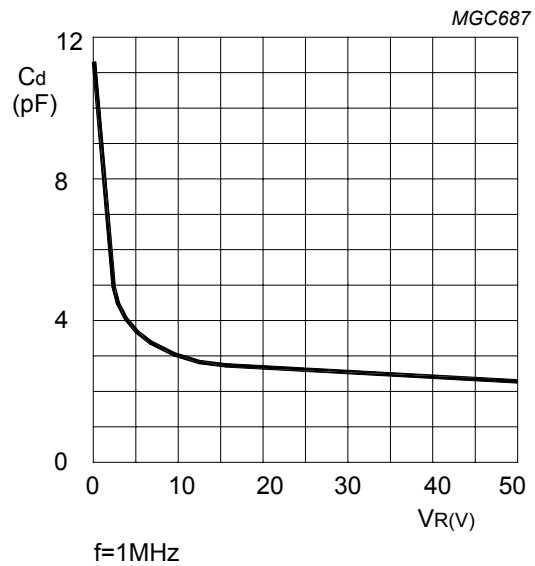


Fig.4 Diode capacitance as a function of reverse voltage; typical values.



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