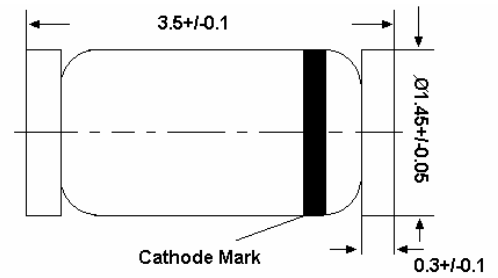# BAS86

SCHOTTKY BARRIER DIODE

**Ultra High-Speed Switching, Voltage Clamping
Protection Circuits and Blocking Applications**

LL34

Features

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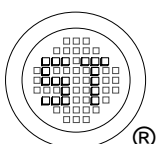

Cathode Mark

**Glass case MiniMELF
Dimensions in mm**

Absolute Maximum Ratings ($T_a = 25^oC$)

Parameter	Symbol	Limits	Unit
Continuous reverse voltage	V_R	50	V
Continuous forward current	I_F	200	mA
Average forward current	$I_{F(AV)}$	200	mA
Repetitive peak forward current $t_p \leq 1sec.$; $\delta \leq 0.5$	I_{FRM}	500	mA
Non-repetitive peak forward current $t_p=10ms$	I_{FSM}	5	A
Operating ambient temperature	T_{amb}	-65 to +125	℃
Junction temperature	T_j	125	℃
Storage temperature range	T_S	-65 to +150	℃
Thermal resistance from junction to ambient	R_{thj-a}	320	K/W

Characteristics at $T_a = 25^oC$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward voltage					
at $I_F = 0.1mA$	V_F	-	-	300	mV
at $I_F = 1mA$	V_F	-	-	380	mV
at $I_F = 10mA$	V_F	-	-	450	mV
at $I_F = 30mA$	V_F	-	-	600	mV
at $I_F = 100mA$	V_F	-	-	900	mV
Reverse current (Note 1) at $V_R = 40V$	I_R	-	-	5	μA
Reverse recovery time at $I_F = 10mA$, $I_R = 10mA$, $R_L = 100\Omega$	t_{rr}	-	-	4	ns
Diode capacitance at $V_R = 1V$, $f = 1MHz$	C_d	-	-	8	pF

Note 1: Pulsed test: $t_p=300\mu s$; $\delta =0.02$.

Fig.1 Derating curve.

(1) $T_{amb} = 125\ °C.$
(2) $T_{amb} = 85\ °C.$
(3) $T_{amb} = 25\ °C.$

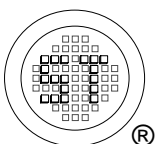Fig. 2 Forward current as a function of forward voltage; typical values.
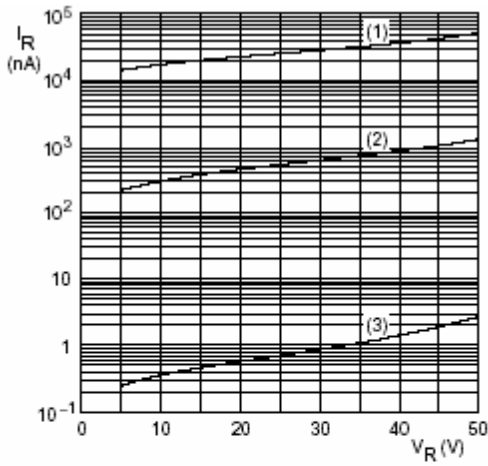
(1) $T_{amb} = 85\ °C.$
(2) $T_{amb} = 25\ °C.$
(3) $T_{amb} = -40\ °C.$

Fig. 3 Reverse current as a function of reverse voltage; typical values.
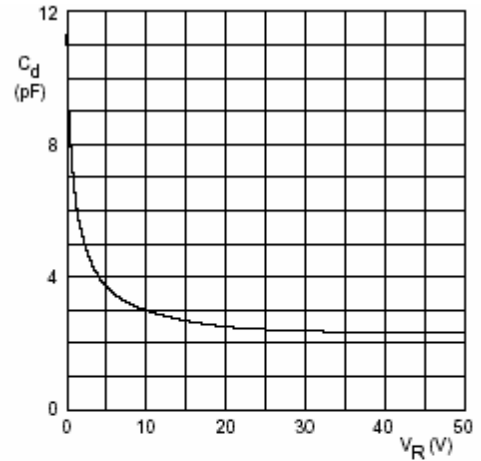
$f = 1\ MHz.$

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

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Fig. 5 Reverse recovery definitions.

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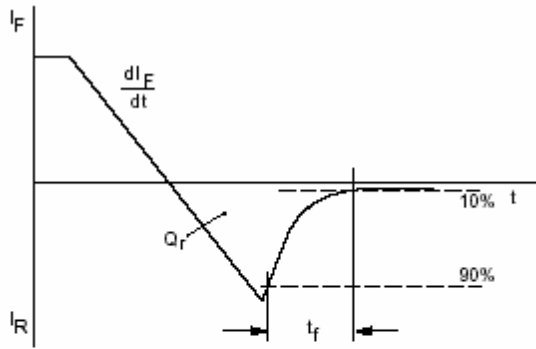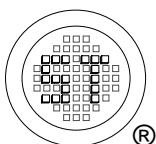Certificate No. 7116

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