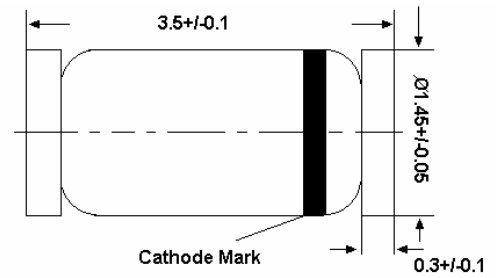# BAS86

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°C)

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°C

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 = 100Ω	t_{rr}	-	-	4	ns
Diode capacitance at V_R = 1V, f = 1MHz	C_d	-	-	8	pF

Note 1: Pulsed test: tp=300μs; δ =0.02.
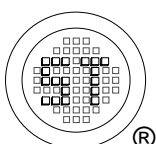
MOODY INTERNATIONAL CERTIFICATION
ISO/TS 16949 : 2002 Certificate No. 05103

MOODY INTERNATIONAL CERTIFICATION
ISO 14001:2004 Certificate No. 7116

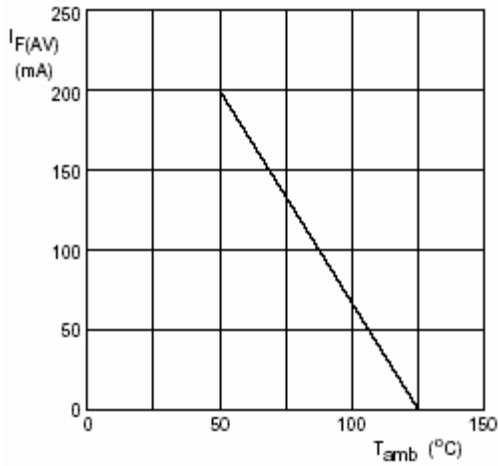MOODY INTERNATIONAL CERTIFICATION
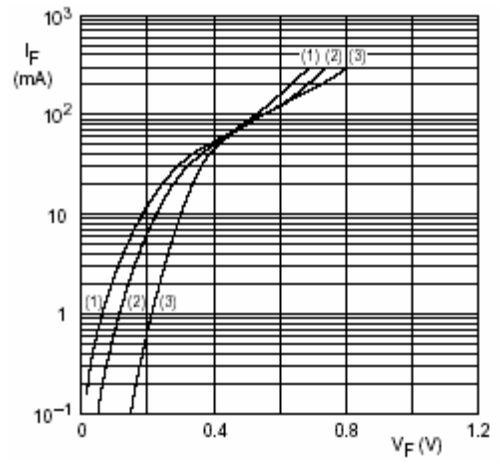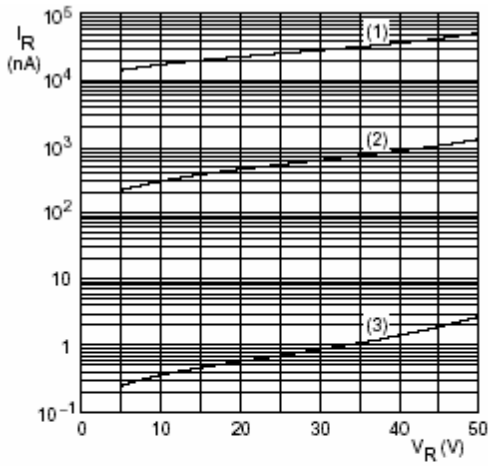ISO 9001:2000 Certificate No. 0506098
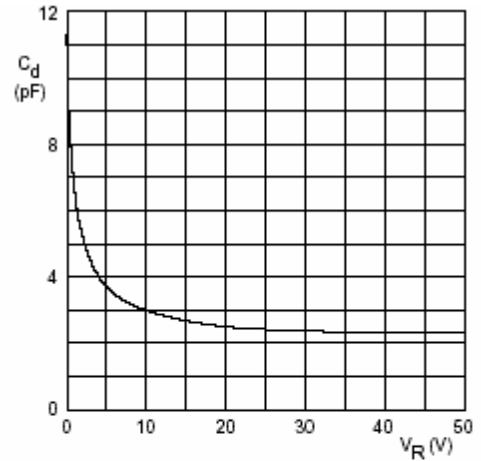
BAS86

Fig.1 Derating curve.

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

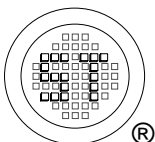Fig. 2 Forward current as a function of forward voltage; typical values.

(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.
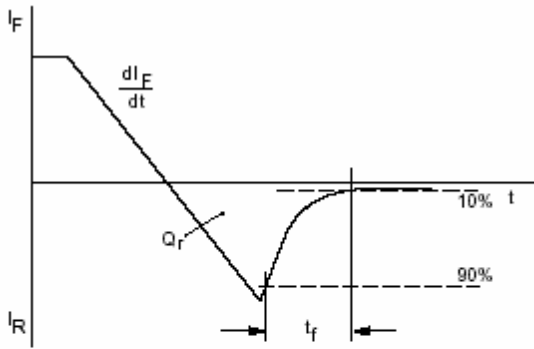
Fig. 5 Reverse recovery definitions.