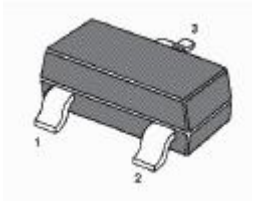
BAS40/-04/-05/-06

SURFACE MOUNT SCHOTTKY BARRIER DIODE

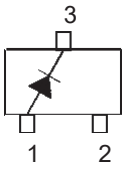


SOT-23 Plastic Package

Features

- Low forward voltage
- Fast switching

BAS40



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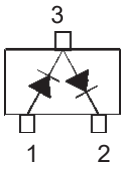
BAS40-04



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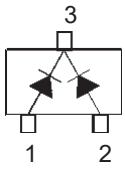

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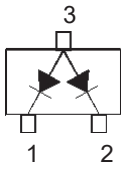

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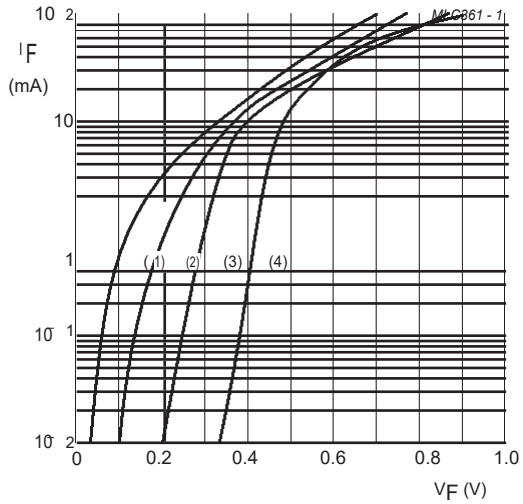
Absolute Maximum Ratings (T_a = 25°C)

Parameter	Symb l	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
DC Blocking Voltage	V_R	40	V
Forward Continuous Current	I_F	200	mA
Peak Forward Surge Current (at tp < 1 s)	I_{FSM}	600	mA
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

Characteristics at T_a = 25°C

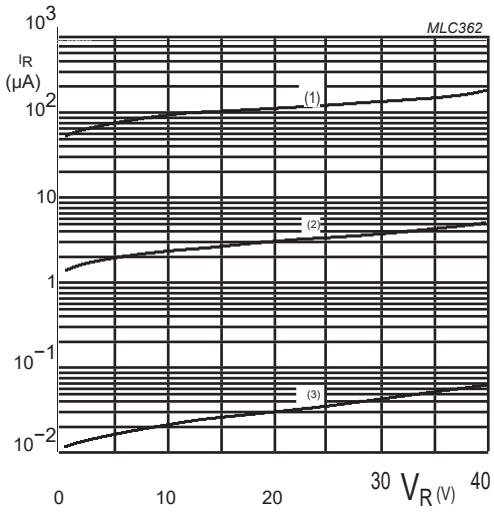
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 1 mA at I_F = 40 mA	 V_F V_F	 - -	 380 1000	 mV mV
Reverse Current at V_R = 30 V	I_R	-	200	nA
Reverse Breakdown Voltage at I_R = 10 μA	$V_{(BR)R}$	40	-	V
Reverse Recovery Time from I_F = 10 mA through I_R = 10 mA to I_R = 1 mA	t_{rr}	-	5	ns
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	5	pF

Typical Characteristics



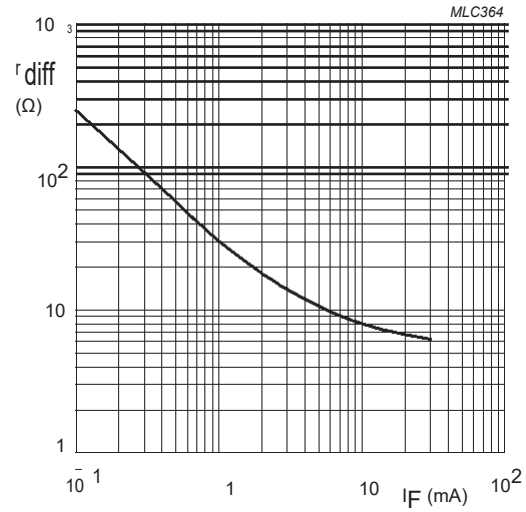
(1) T_{amb} = 150 °C.
(2) T_{amb} = 85 °C.
(3) T_{amb} = 25 °C.
(4) T_{amb} = −40 °C.

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



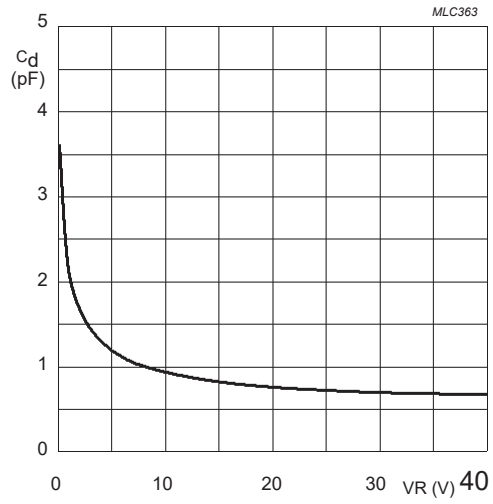
(1) T_{amb} = 150 °C.
(2) T_{amb} = 85 °C.
(3) T_{amb} = 25 °C.

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



f = 10 kHz.

Fig. Differential forward resistance as a function of forward current; typical values.

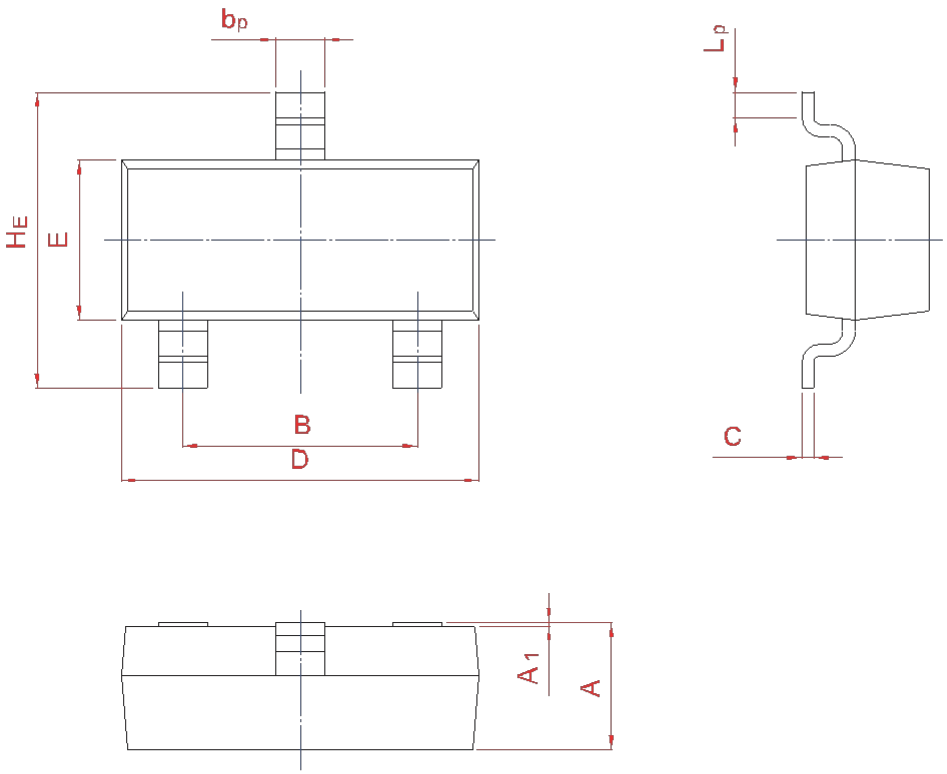


f = 1 MHz T_{amb} = 25 °C.

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

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20