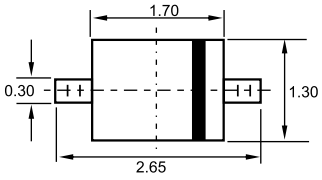
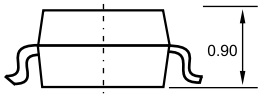
BAS40WS

Schottky Diodes

SOD-323





Features

- ✧ LOW Turn-on Voltage
- ✧ Fast Switching
- ✧ PN Junction Guard for Transient and ESD Protection
- ✧ Designed for Surface Mount Application
- ✧ Plastic Material –UL Recognition Flammability Classification 94V-O

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Dimensions in inches and (millimeters)

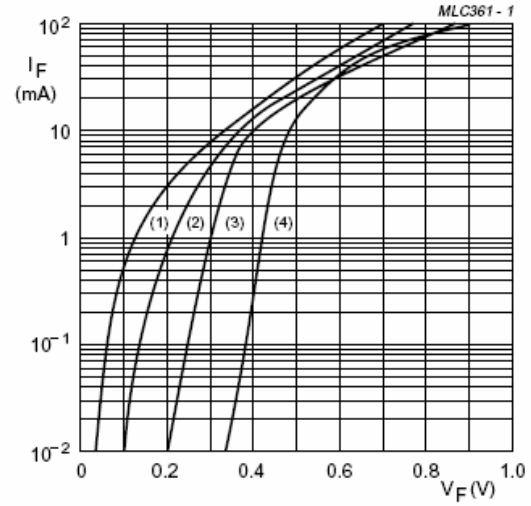
Maximum Ratings

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	V_{RRM} V_{RWM} V_R	40	V
Forward Continuous Current	I_F	200	mA
Peak forward surge current @<1.0s	I_{FSM}	600	mA
Power Dissipation	Pd	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	℃/W
Storage temperature	T_{STG}	-55 to +150	℃

Electrical Ratings

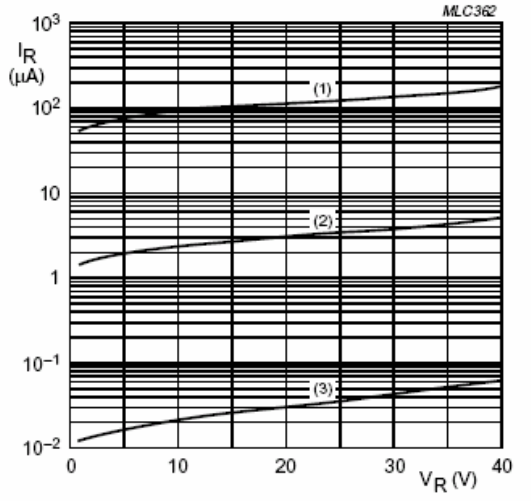
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	40			V	I_R=10μA
Forward voltage	V_{F1}			0.38	V	I_F=1mA
	V_{F2}			0.5	V	I_F=10mA
	V_{F3}			1	V	I_F=40mA
Reverse current	I_R		20	200	nA	V_R=30V
Capacitance between terminals	C_T		4	5	pF	V_R=0V,f=1MHz
Reverse Recovery Time	t_{rr}			5	ns	I_F=I_R=10mA Irr=0.1XI_R,R_L=100Ω

Typical Characteristics



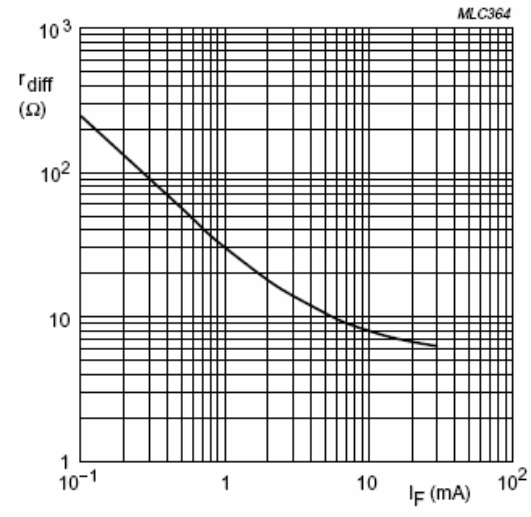
(1) T_{amb} = 150 °C.
(2) T_{amb} = 85 °C.
(3) T_{amb} = 25 °C.
(4) T_{amb} = −40 °C.

Fig.1 Forward current as a function of forward voltage; typical values.



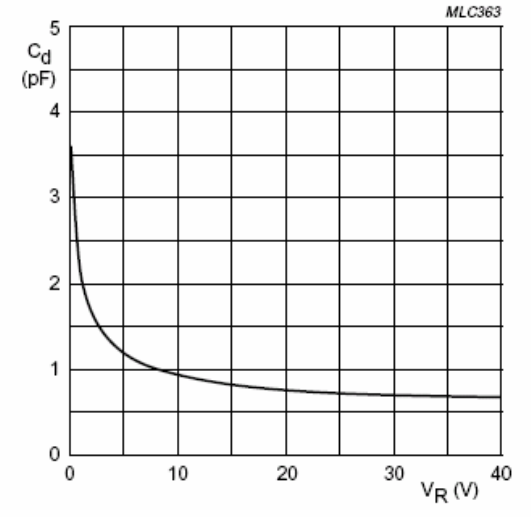
(1) T_{amb} = 150 °C.
(2) T_{amb} = 85 °C.
(3) T_{amb} = 25 °C.

Fig.2 Reverse current as a function of reverse voltage; typical values.



f = 10 KHz.

Fig.3 Differential forward resistance as a function of forward current; typical values.



f = 1 MHz; T_{amb} = 25 °C.

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