

SOT-23 Plastic SMD

Schottky Diode

BAR43

Applications

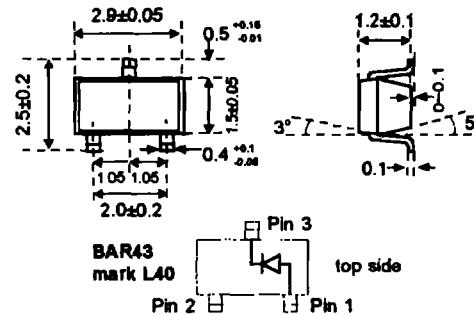
Excellent MOS protection. Efficient portable system battery isolator. Used in small fast motor applications such as CD ROMs and hard disk drives.

Features

- Small size
- High quality
- Fast switching
- Low forward drop
- Available in DO-35 and MELF glass packages

Parts are packaged in 8 mm tape and shipped on 3000 piece 7 inch reels.

SOT-23 PACKAGE OUTLINE (all dimensions in millimeters)



Maximum Ratings	Symbol	Value		Unit
Peak Inverse Voltage @ 100 μ A (pulsed)	PIV	30 (Min.)		Volts
Average Rectified Current @ T_{Amb}	I_{Avg}	200 ¹⁾		mAmps
Repetitive Peak Forward Current @ T_{Amb}	I_{FRP}	500 ¹⁾		mAmps
Peak Surge Current ($t_{peak} = 10$ msec.)	I_{PSM}	4.0 ¹⁾		Amps
Thermal Resistance Junction to Ambient Air	R_{thA}	300 ¹⁾		$^{\circ}\text{C}/\text{Watt}$
Junction Temperature	T_J	125		$^{\circ}\text{C}$
Storage Temperature Range	T_{St}	-65 to +125		$^{\circ}\text{C}$
Electrical Characteristics @ 25 $^{\circ}\text{C}$	Symbol	Min.	Typ.	Max.
Forward Voltage Drop @ $I_F = 2.0$ mA	$V_F^{(3)}$	0.26		0.33
Forward Voltage Drop @ $I_F = 15$ mA	$V_F^{(3)}$		0.45	Volt
Forward Voltage Drop @ $I_F = 200$ mA	$V_F^{(3)}$		1.0	Volt
Reverse Leakage Current @ $V_R = 25$ V	$I_R^{(3)}$		0.5	μA
Reverse Leakage Current @ $V_R = 25$ V	$I_R^{(3)} @ 100^{\circ}\text{C}$		100	μA
Capacitance @ $V_R = 1$ V, $f = 1\text{mHz}$	C_{tot}	7.0		pF
Reverse Recovery Time (note 2)	$t_{rr}^{(2)}$		5.0	nSecs

Note 1): Device on fiber glass substrate. 1.5 mm thick with 0.3mm wide copper leads.

Note 2): $I_F = I_R = 10$ mA, $R_L = 100$ Ohms, Recover to 1mA.

Note 3): Pulse tested at $t_p = 300\mu\text{Secs}$ at a 2% duty cycle.

Available as a Mini-MELF (LL43) and in a glass DO-35 version (BAT43).



BKC Semiconductors
Incorporated

6 Lake Street
Lawrence, MA
USA 01841