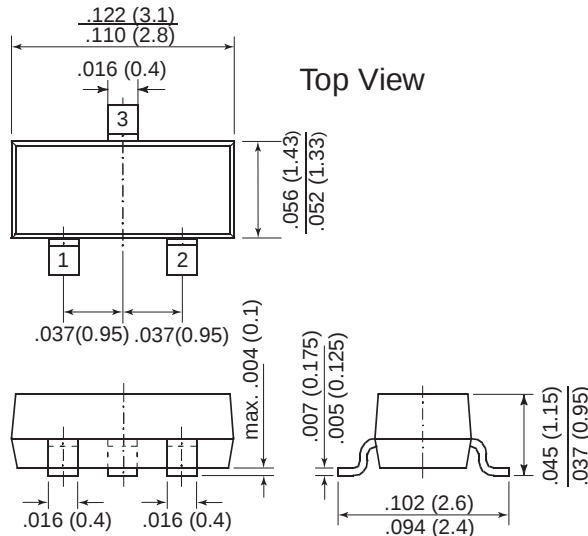




Schottky Diodes

**TO-236AB (SOT-23)**

Features

- These diodes feature very low turn-on voltage and fast switching.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.

Mechanical Data

Case: SOT-23 Plastic Package**Weight:** approx. 0.008g**Packaging Codes/Options:**

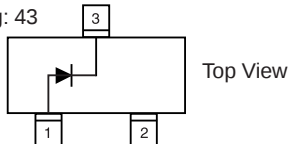
E8/10K per 13" reel (8mm tape), 30K/box

E9/3K per 7" reel (8mm tape), 30K/box

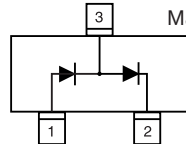
Mounting Pad Layout

BAS40

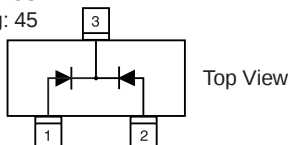
Marking: 43

**BAS40-04**

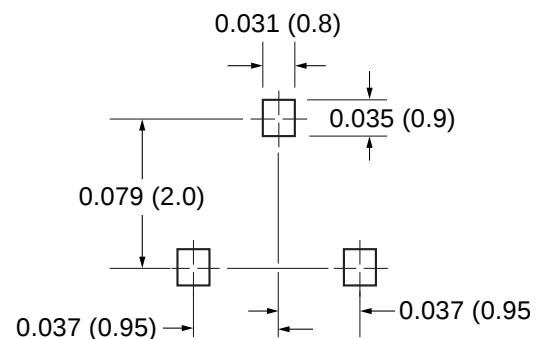
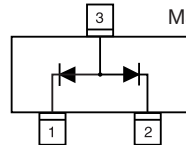
Marking: 44

**BAS40-05**

Marking: 45

**BAS40-06**

Marking: 46



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Forward Continuous Current at T _{amb} = 25°C	I _F	200 ⁽¹⁾	mA
Surge Forward Current at t _p < 1 s, T _{amb} = 25°C	I _{FSM}	600 ⁽¹⁾	mA
Power Dissipation ⁽¹⁾ at T _{amb} = 25°C	P _{tot}	200 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	R _{thJA}	430 ⁽¹⁾	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _s	-55 to +150	°C

Note:

(1) Device on fiberglass substrate, see layout on next page.

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 10\mu A$ (pulsed)	40	—	—	V
Leakage Current	I_R	Pulse Test $t_p < 300\mu s$ $V_R = 30V$	—	20	100	nA
Forward Voltage	V_F	Pulse Test $t_p < 300\mu s$ $I_F = 1mA$ $I_F = 40mA$	— —	— —	380 1000	mV mV
Capacitance	C_{tot}	$V_R = 0V$ $f = 1MHz$	—	4.0	5	pF
Reverse Recovery Time	t_{rr}	$I_F = 10mA$, $I_R = 10mA$ $I_{rr} = 1mA$, $R_L = 100\Omega$	—	—	5	ns

Note:

(1) Device on fiberglass substrate, see layout.

Layout for R_{thJA} test

Thickness: Fiberglass 0.059 in. (1.5 mm)
Copper leads 0.012 in. (0.3 mm)

