



Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

BAS40 THRU BAS70

Surface Mount Schottky Barrier Diode 200 mWatt

Features

- SOT-23 Package For surface mount application
- Protects from line to V_{CC} and line to ground
- Low forward voltage and reverse recovery characteristics
- Bidirectional-low-forward available with “-04” suffix (Figure 2)
- Tape & Reel EIA Standard 481.

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Mounting Position: Any
- Weight: .008 grams (approx.)

MAXIMUM RATINGS

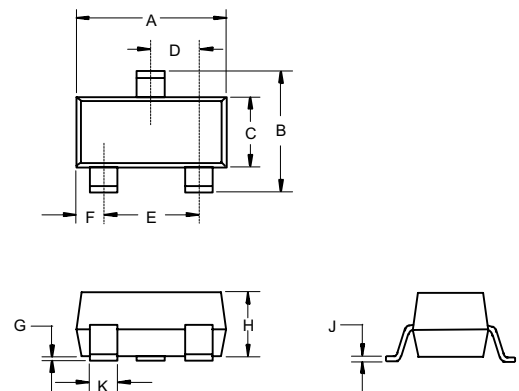
- Operating Temperature: -55°C to $+125^{\circ}\text{C}$
- Storage Temperature: -55°C to $+150^{\circ}\text{C}$
- Power Dissipation: 200 mWatts @ $T_{amb}=25^{\circ}\text{C}$
- Forward Continuous Current: 200mA @ $T_{amb}=25^{\circ}\text{C}$
- Surge Forward Current: 600mA @ $t_p < 1s, T_{amb}=25^{\circ}\text{C}$

DESCRIPTION

Various configurations of Schottky barrier's diodes in SOT-23 package are provided for general-purpose use in high-speed switching ,mixers and detector applications. They may also be used for signal integrity and counteract the transmission-line effects with (PC) board trances by clamping over/and undershoot from signal reflections with the schottky-low-threshold voltages.

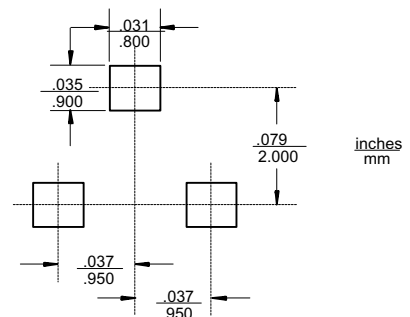
This type of termination also does not depend on matching the transmission line characteristic impedance, making it particularly useful where line impedance is unknown or a variable. This method of termination can control distortions of clock, data, address, and control lines as well as provides a stabilizing effect on signal jitter. It can also significantly reduce power consumption compared to standard resistor-based termination methods.

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

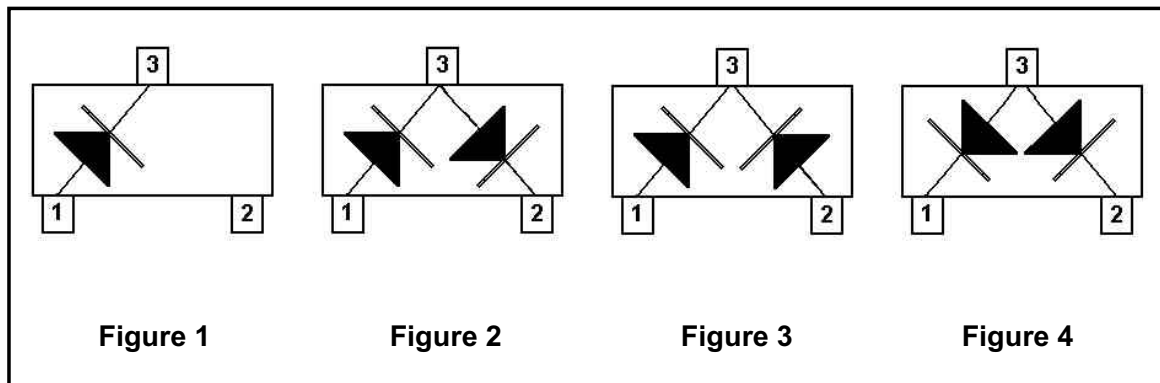
Suggested Solder Pad Layout



BAS40 and BAS70

ELECTRICAL CHARACTERISTICS PER DIODE @ 25°C Unless otherwise specified

DEVICE TYPE	DEVICE MARKING	FIGURE	Repetitive Peak Reverse Voltage	Reverse Breakdown Voltage Tested with 10µA Pulse	Leakage Current Pulse test tp < 300µs @		Forward Voltage Pulse Test tp < 300µs at I _F = 1 mA at I _F = 40 mA			Reverse Recovery Time from I _F = 10 mA through I _R = 10mA to I _R = 1mA	Thermal Resistance Junction to Ambient Air	Capacitance At V _R = 0V F = 1 MHz C _{tot}
			V _{RRM} (VOLTS)	V _{BR(R)} (VOLTS)	I _R (nA)	V _F (mV)	t _r (ns)	R _{thJA} (K/W)	pF			
			TYP	MIN	TYP	MAX	I _F =1mA	I _F =15mA	I _F =40mA	MAX	MAX	MAX
BAS40	43	1	40	40	20	200	380		1000	5	430	5
BAS40-04	44	2	40	40	20	200	380		1000	5	430	5
BAS40-05	45	3	40	40	20	200	380		1000	5	430	5
BAS40-06	46	4	40	40	20	200	380		1000	5	430	5
BAS70	73	1	70	70	20	200	410	1000		5	430	2
BAS70-04	74	2	70	70	20	200	410	1000		5	430	2
BAS70-05	75	3	70	70	20	200	410	1000		5	430	2
BAS70-06	76	4	70	70	20	200	410	1000		5	430	2





Micro Commercial Components

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

APPLICATIONS DISCLAIMER

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.