

**BAS40
THRU
BAS70****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.)

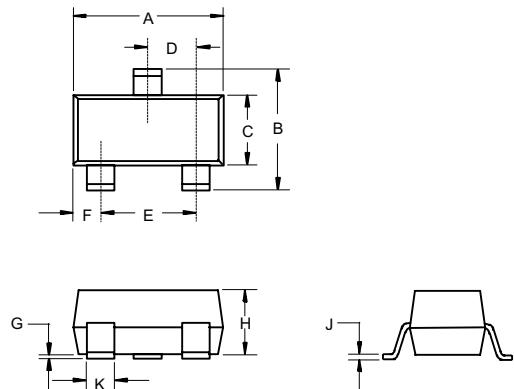
MAXIMUM RATINGS

- 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 @ $t_p < 1\text{ s}$, $T_{amb}=25^{\circ}\text{C}$

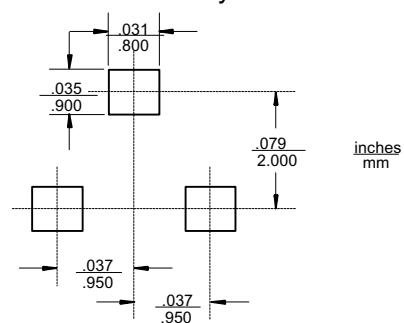
DESCRIPTION

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 traces 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.

Surface Mount**Schottky Barrier Diode
200 mWatt****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

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 If = 1 mA at If = 40 mA			Reverse Recovery Time from If = 10 mA through If = 10mA to If = 1mA	Thermal Resistance Junction to Ambient Air	Capacitance At VR = 0V F = 1 MHz Ctot	
			V _{RRM} (VOLTS)	V _{(BR)R} (VOLTS)	TYP	MIN	TYP	MAX	I _f =1mA	I _f =15mA	I _f =40mA	t _{rr} (ns)	R _{thJA} (K/W)
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

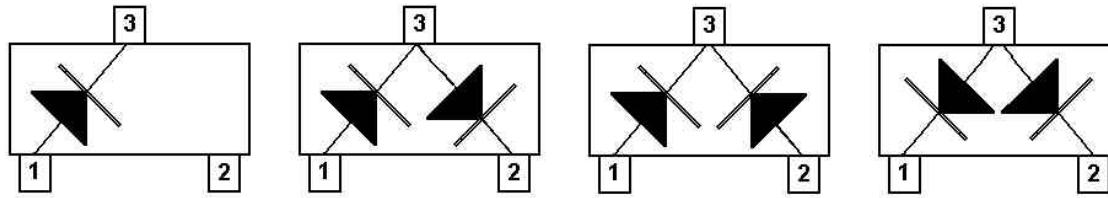


Figure 1

Figure 2

Figure 3

Figure 4

TM

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Ordering Information

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

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