



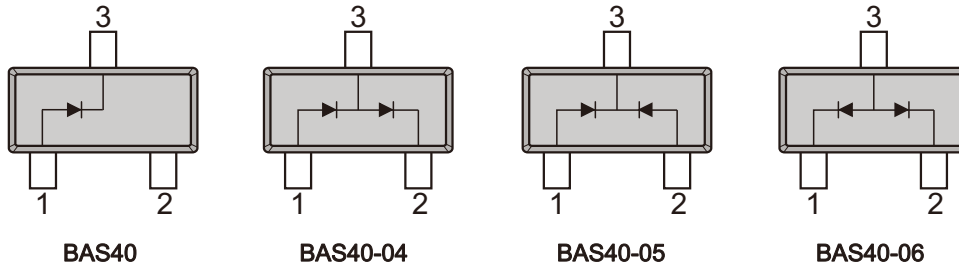
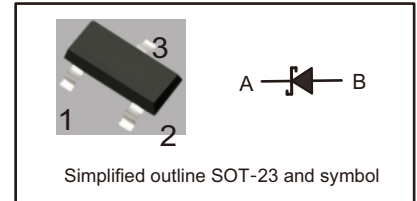
SCHOTTKY BARRIER DIODE

FEATURES

- Low Forward Voltage
- Fast Switching

PINNING

PIN	DESCRIPTION
A	Cathode
B	Anode



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
DC Blocking Voltage	V_R		
Working Peak Reverse Voltage	V_{RWM}	40	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}		
Forward continuous current	I_{FM}	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Air ⁽¹⁾	R_{thJA}	500	°C/W
Thermal Resistance Junction to Case ⁽¹⁾	R_{thJC}	200	°C/W
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch FR-4 board with 1OZ copper

ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	V_{BR}	$I_R=10\mu A$	40		V
Reverse voltage leakage current	I_R	$V_R=30V$		0.2	μA
		$V_R=40V$		0.35	
Forward voltage	V_F	$I_F=1mA$		0.38	V
		$I_F=40mA$		1.0	
		$I_F=200mA$		1.3	
Diode capacitance	C_D	$V_R=0, f=1MHz$		5	pF
Reverse recovery time	t_{rr}	$I_{rr}=1mA, I_F=I_R=10mA$ $R_L=100\Omega$		5	ns



Fig.1 Power Derating Curve

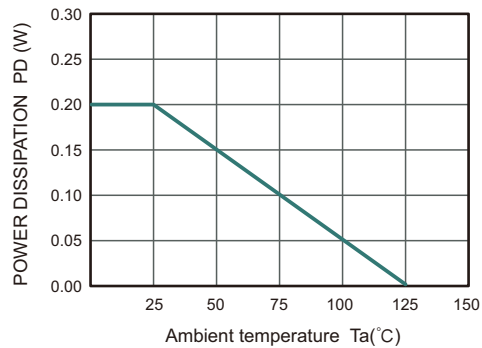


Fig.2 Typical Reverse Characteristics

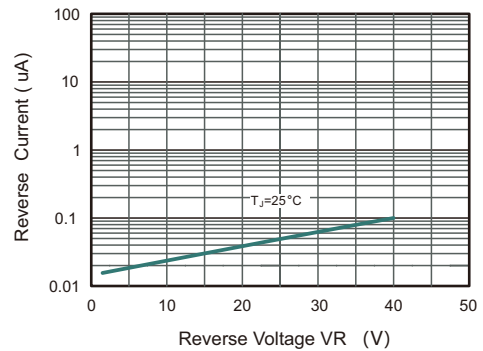


Fig.3 Forward Characteristics

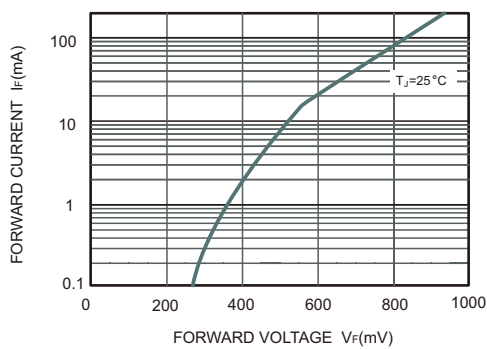
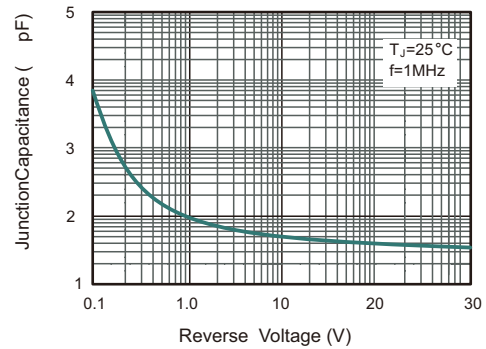
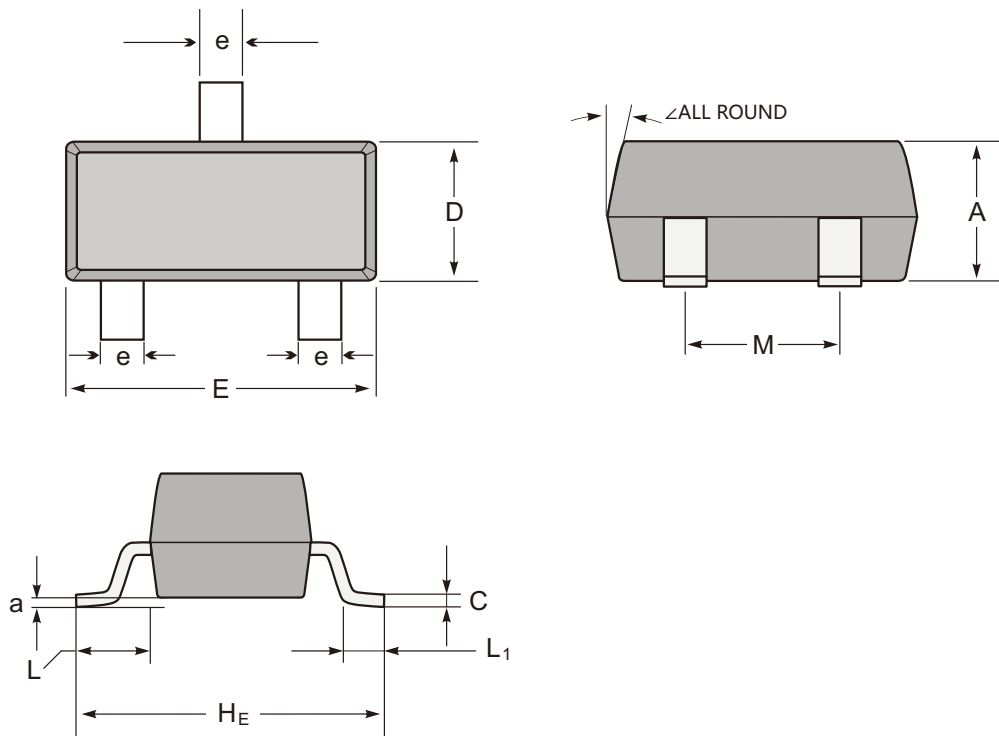


Fig.4 Typical Junction Capacitance





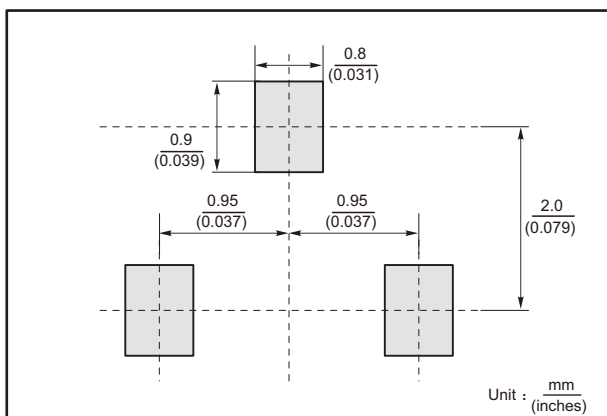
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L ₁	a	∠
mm	max	1.1	0.20	1.4	3.0	2.6	0.6	1.95	0.55 (ref)	0.36 (ref)	0.15	12°
	min	0.9	0.08	1.2	2.8	2.2	0.35	1.7			0.0	
mil	max	43	7.9	55	118	102	24	77	22 (ref)	14 (ref)	6	
	min	35	3.1	47	110	87	13	67			0.0	

The recommended mounting pad size



Marking

Type number	Marking code
BAS40	43
BAS40-04	44
BAS40-05	45
BAS40-06	46



Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice.

Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.