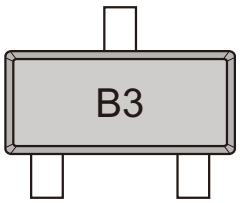
Switching Diodes

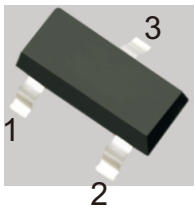
FEATURES

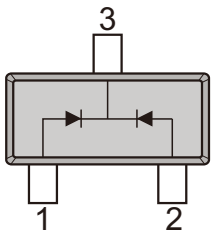
- Low forward voltage : VF(3) = 0.9 V(Typ.)
- Fast reverse recovery time : trr = 1.6 ns(Typ.)
- Small Total Capacitance : CT = 0.9pF(Typ.)
- Meets MSL 1 Requirements
- Qualified to AEC-Q101 Standards for High Reliability

MARKING: B3



SOT-23





Automotive Grade

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

Parameter	Symbol	Value	Unit
Peak Reverse voltage	V_{RM}	85	V
DC Blocking Voltage	V_R	80	V
Average Rectified Output Current	I_O	100	mA
Peak forward surge current	I_{FM}	300	mA
Power Dissipation	P_D	150	mW
Operating Junction Temperature range	T_J	-55 ~ +150	℃
Storage temperature range	T_{STG}	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R=100μA	80			V
Forward voltage	V_{F1}	I_F=1 mA		0.6		V
	V_{F2}	I_F=10mA		0.72		V
	V_{F3}	I_F=100mA		0.9	1.2	V
Reverse voltage leakage current	I_{R1}	V_R=30V			0.1	uA
	I_{R2}	V_R=80V			0.5	uA
Capacitance between terminals	C_T	V_R=0V, f=1MHz		0.9	3.0	pF
Reverse recovery time	t_{rr}	I_F=10mA,V_R=6V,I_{rr}=0.1I_R, R=100Ω		1.6	4.0	ns

Typical Performance Characteristics

Fig.1 Power Derating Curve

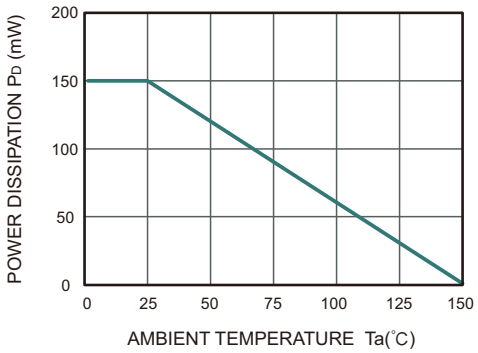


Fig.2 Reverse Characteristics

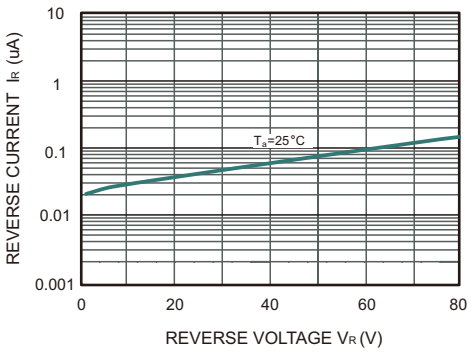


Fig.3 Forward Characteristics

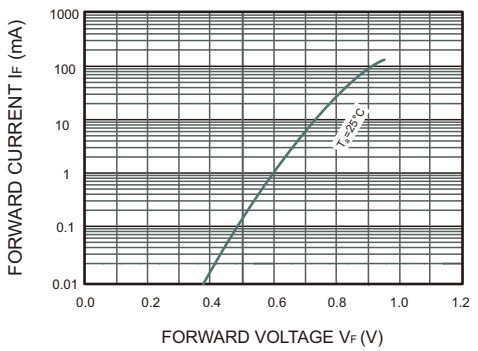
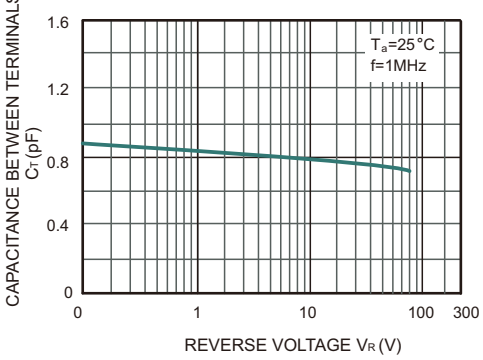
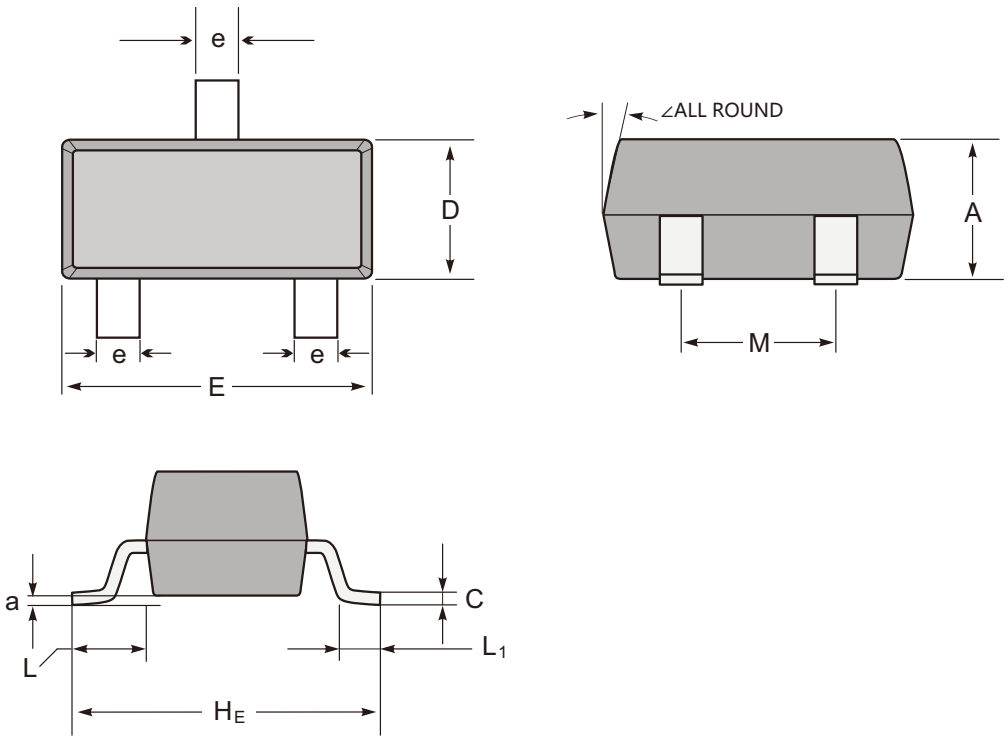


Fig.4 Capacitance Characteristics



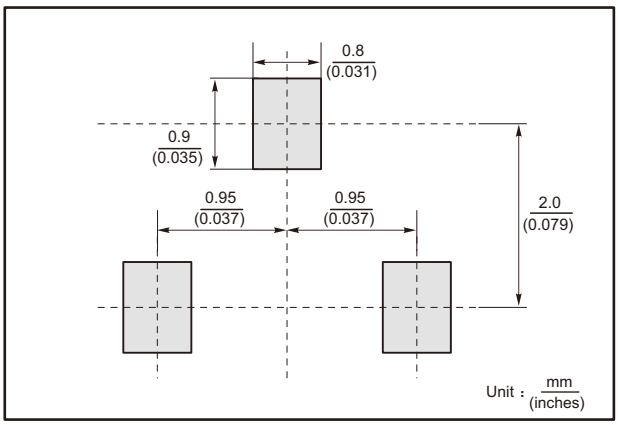
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	H_E	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
AT-1SS184WD	B3

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, not 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.