Silicon Hot–Carrier Diodes

SCHOTTKY BARRIER Diodes

FEATURES

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automated Insertion
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device

MECHANICAL DATA

- Case: SOD-123W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:16mg/0.00056oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View
Simplified outline SOD-123W and symbol

Maximum Ratings and Electrical characteristics
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter		Symbols	JD701WA	Units
DC Blocking Voltage		V_R	70	V
Forward Continuous Current		I_F	0.2	A
Power dissipation (NOTE 1) Derate above 25℃		P_D	225 2.25	mW mW/℃
Reverse Breakdown Voltage	I_R = 10μA	V_{BR}	70	V
Forward Voltage (NOTE 2)	I_F=1.0mA I_F=10 mA	V_F	0.42(Typ) 0.50(Max) 0.70(Typ) 1.00(Max)	V
Peak Reverse Current	V_R=35V,Tj=25℃	I_R	30(Typ) 200(Max)	nA
Typical Junction Capacitance	V_R=0V,f=1MHz V_R=20V,f=1MHz	C_T	2.5(Typ) 3.0(Max) 0.6(Typ) 1.0(Max)	pF
Thermal Resistance, Junction to Ambient Air (NOTE 1)		$R_{\theta JA}$	635	°C/W
Junction Temperature		T_j	125	°C
Storage Temperature		T_{stg}	-55 ~ +150	°C

Notes: 1. Part mounted on FR-5 board with recommended pad layout.
2. Short duration pulse test used to minimize self-heating effect.

TYPICAL ELECTRICAL CHARACTERISTICS

Fig 1.Total Capacitance

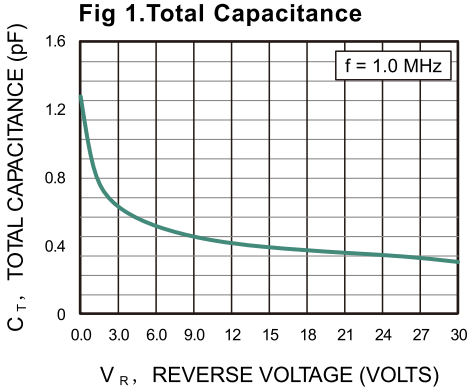


Fig 2.Minority Carrier Lifetime

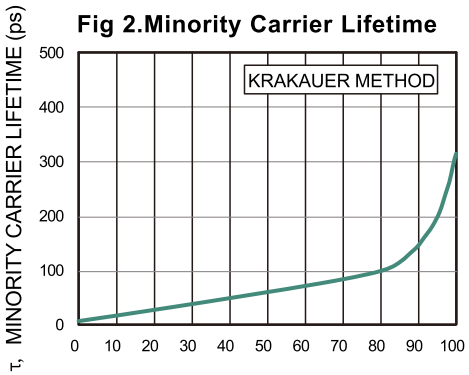


Fig 3.Reverse Leakage

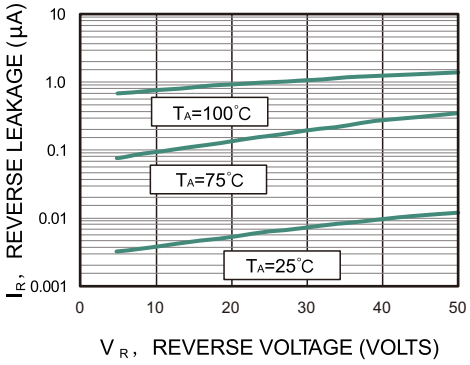
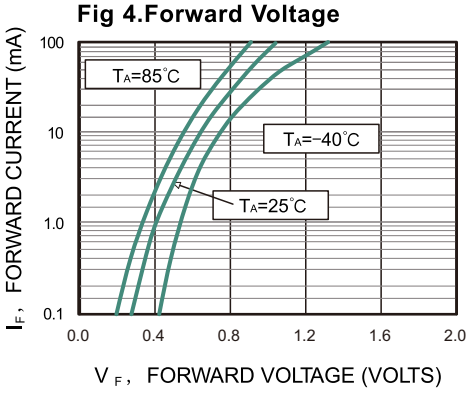


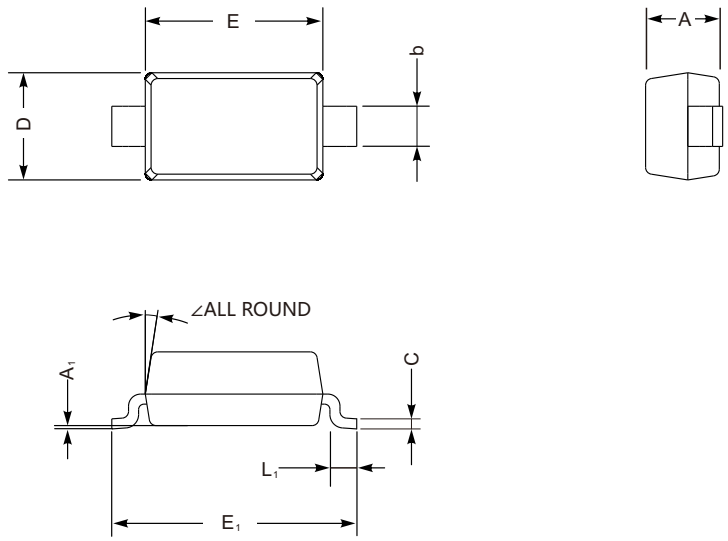
Fig 4.Forward Voltage



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

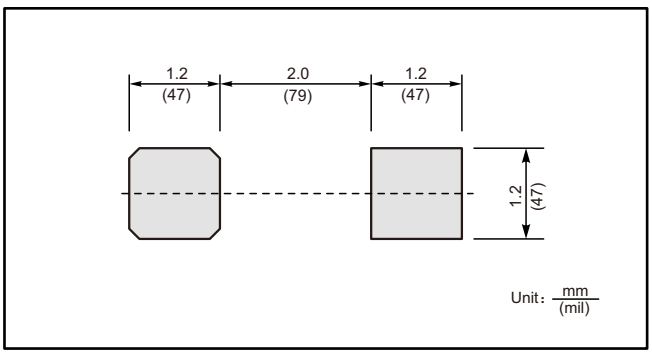
SOD-123W



SOD-123W mechanical data

UNIT		A	C	D	E	E_1	L_1	b	A_1	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Marking

Type number	Marking code
JD701WA	701

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.