Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

# SD103ASDM

SURFACE MOUNT SCHOTTKY BARRIER DIODE ARRAY

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Reverse Capacitance
- Also Available in Lead Free Version

Mechanical Data

- Case: SOT-26, Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Polarity: See Diagram
- Leads: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 3
- Marking: KSU (See Page 3)
- Weight: 0.016 grams (approx.)

TOP VIEW

TOP VIEW
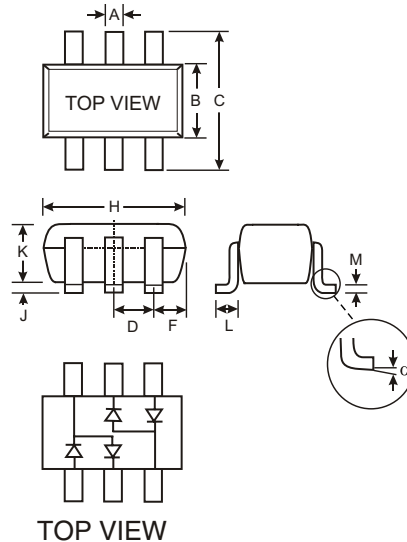
SOT-26			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	—	—	0.95
F	—	—	0.55
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
α	0°	8°	—
All Dimensions in mm			

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current (Note 1)	I_{FM}	350	mA
Non-Repetitive Peak Forward Surge Current @ t $\leq$ 1.0s	I_{FSM}	1.5	A
Power Dissipation (Note 1)	P_d	225	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	444	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	40	—	—	V	I_R = 100μA
Forward Voltage Drop (Note 2)	V_F	—	—	0.37 0.50 0.60	V	I_F = 20mA I_F = 100mA I_F = 200mA
Reverse Current (Note 2)	I_R	—	—	5.0	μA	V_R = 30V
Total Capacitance	C_T	—	50	—	pF	V_R = 0V, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	10	—	ns	I_F = I_R = 200mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

Notes: 1. Device mounted on FR-5 PCB 1.0 x 0.75 x 0.062 inch pad layout as shown on Diodes Inc. suggested pad layout AP02001, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
2. Short duration test pulse used to minimize self-heating effect.

I$_F$, INSTANTANEOUS FORWARD CURRENT (A)

T$_A$ = 125°C

T$_A$ = 75°C

T$_A$ = 25°C

T$_A$ = 0°C

T$_A$ = -40°C
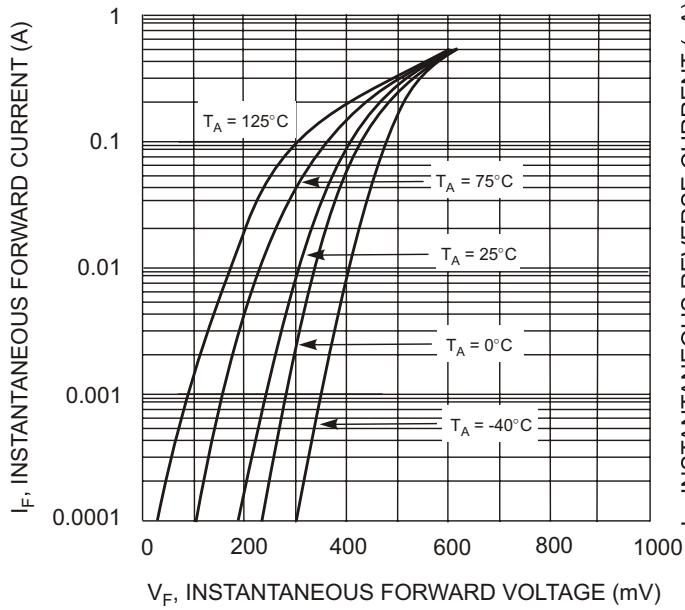
V$_F$, INSTANTANEOUS FORWARD VOLTAGE (mV)
Fig. 1 Typical Forward Characteristics

I$_R$, INSTANTANEOUS REVERSE CURRENT (µA)

T$_A$ = 125°C

T$_A$ = 75°C

T$_A$ = 25°C

T$_A$ = 0°C

T$_A$ = -40°C
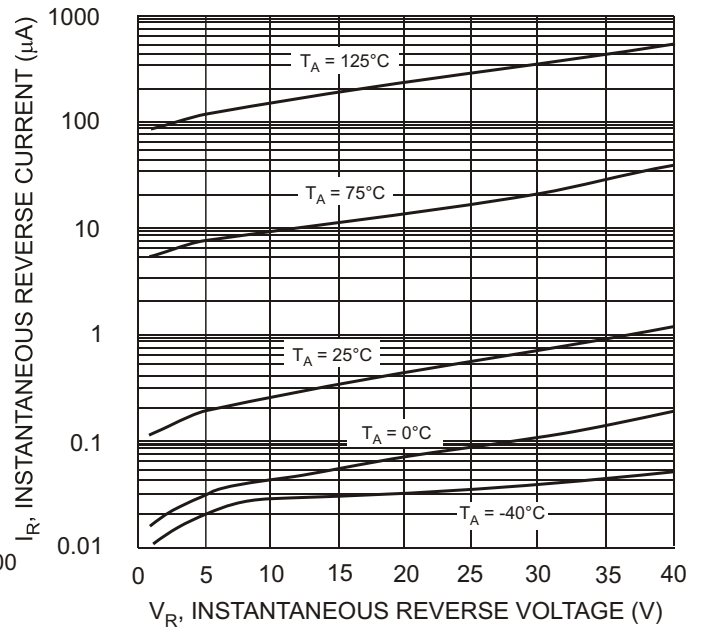
V$_R$, INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 2 Typical Reverse Characteristics

C$_T$, TOTAL CAPACITANCE (pF)

f = 1.0MHz
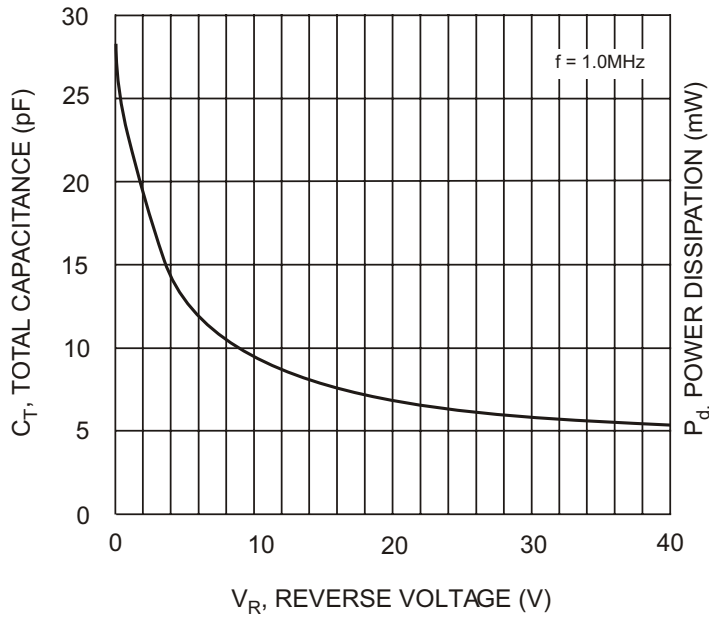
V$_R$, REVERSE VOLTAGE (V)
Fig. 3 Typ. Total Capacitance vs. Reverse Voltage

P$_d$, POWER DISSIPATION (mW)
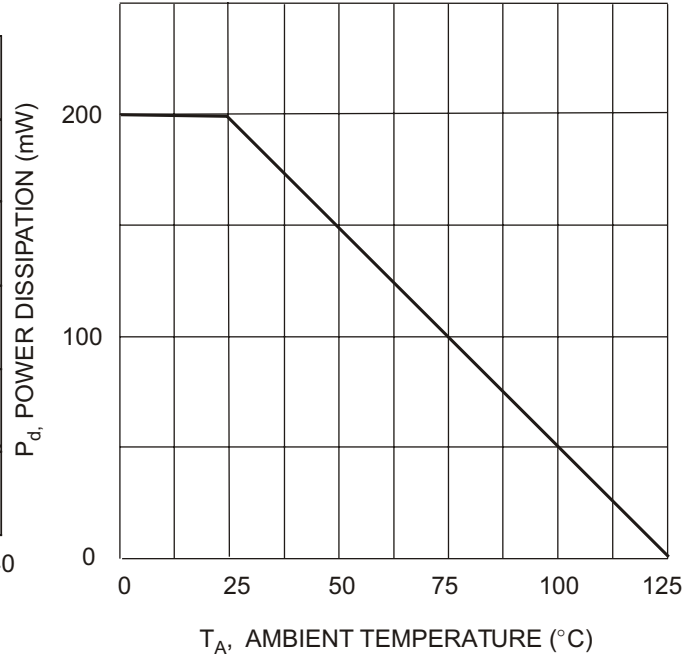
T$_A$, AMBIENT TEMPERATURE (°C)
Fig. 4 Power Derating Curve

Ordering Information (Note 3)

Device	Packaging	Shipping
SD103ASDM-7	SOT-26	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.
4. For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above.
Example: SD103ASDM-7-F.

Marking Information

KSU   YM
MY   ∩SK
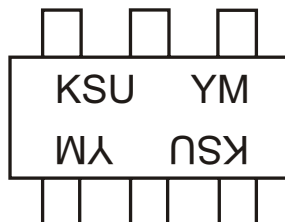
KSU = Product Type Marking Code
YM = Date Code Marking
Y = Year ex: N = 2002
M = Month ex: 9 = September

Date Code Key

Year	2002	2003	2004	2005	2006	2007	2008	2009
Code	N	P	R	S	T	U	V	W

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D