

SCHOTTKY BARRIER SWITCHING DIODE Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Also Available in Lead Free Version
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

Mechanical Data

- Case: SOD-123, Plastic
- Case material UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Polarity: Cathode Band
- 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 2
- Marking: Type Code only or Date Code and Type Code
- Type Codes: LMSD103AT1G S4 LMSD103BT1G S5 LMSD103CT1G S6
- Weight: 0.01 grams (approx.)

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	LMSD103AT1G	LMSD103BT1G	LMSD103CT1G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40	30	20	V
RMS Reverse Voltage	V _{R(RMS)}	28	21	14	V
Forward Continuous Current (Note 1)	I _{FM}	350			mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s		1.5			
Power Dissipation (Note 1)		400			
Thermal Resistance, Junction to Ambient Air (Note 1)		300			°C/W
Operating and Storage Temperature Range		-65 to +125			°C

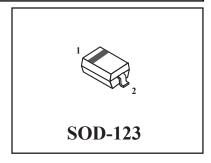
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	LMSD103AT1G LMSD103BT1G LMSD103CT1G	V _{(BR)R}	40 30 20	_	_	V	I _R = 100μA
Forward Voltage Drop (Note 2)		V _{FM}	_	_	0.37 0.60	V	I _F = 20mA I _F = 200mA
Peak Reverse Current (Note 2)	LMSD103AT1G LMSD103BT1G LMSD103CT1G	I _{RM}	_	_	5.0	μА	V _R = 30V V _R = 20V V _R = 10V
Total Capacitance		Ст	_	28	_	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time		t _{rr}		10	_	ns	$I_F = I_R = 200 \text{mA},$ $I_{rr} = 0.1 \text{ x } I_R, R_L = 100 \Omega$

Notes: 1. Part mounted on FR-4 board with recommended pad layout, which can be found on our website

2. Short duration test pulse used to minimize self-heating effect.

LMSD103*T1G S-LMSD103*T1G

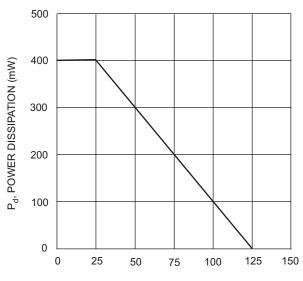


Equivalent Circuit Diagram

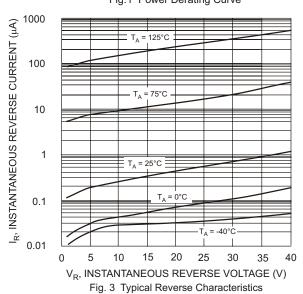


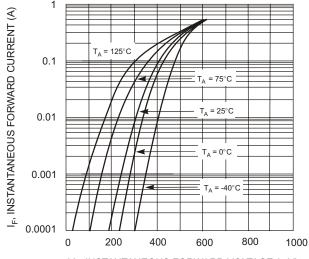


LMSD103*T1G, S-LMSD103*T1G



T_A, AMBIENT TEMPERATURE (°C) Fig.1 Power Derating Curve





V_F, INSTANTANEOUS FORWARD VOLTAGE (mV) Fig. 2 Typical Forward Characteristics

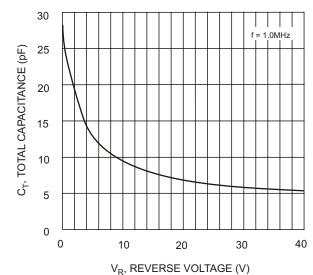
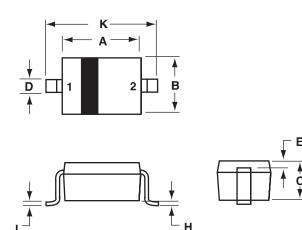


Fig. 4 Typ. Total Capacitance vs. Reverse Voltage



LMSD103*T1G, S-LMSD103*T1G

SOD-123 Outline Dimensions



Unit:mm

SOD-123					
Dim	Min	Max			
A	2.55	2.85			
В	1.40	1.80			
C	0.95	1.35			
D	0.50	0.70			
E	0.30 REF				
Н	-	0.10			
J	-	0.15			
K	3.55	3.85			

PIN 1. CATHODE 2. ANODE

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