



Certificate TH97/10561QM

Certificate TW00/17276EM

1N5819W

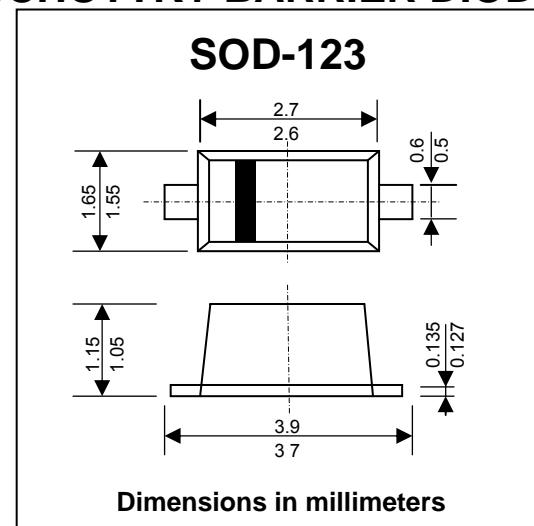
SURFACE MOUNT SCHOTTKY BARRIER DIODE

FEATURES :

- * Low Power Loss,
- * Low Forward Voltage Drop
- * High Efficiency
- * High Surge Capability
- * High Current Capability
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case: SOD-123, Plastic
- * Terminals: Solderable per MIL-STD-202, Method 208
- * Polarity: Cathode Band
- * Weight: 0.01 grams (approx.)



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Maximum Working Peak Reverse Voltage at $I_R = 1 \text{ mA}$	V_{RWM}	40	V
Maximum DC Blocking Voltage	V_R	40	V
Maximum RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Maximum Average Forward Current	I_F	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0	A
Power Dissipation	P_{tot}	450	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	222	°C/W
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{STG}	-55 to + 125	°C

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 1.0 \text{ mA}$	40	-	-	V
Forward Voltage (Note 1)	V_F	$I_F = 0.1 \text{ A}$	-	-	0.32	V
		$I_F = 1.0 \text{ A}$	-	-	0.45	
		$I_F = 3.0 \text{ A}$	-	-	0.75	
		$V_R = 40 \text{ V}$	-	-	1	
Reverse Leakage Current (Note 1)	I_{RM}	$V_R = 40 \text{ V}, T_a = 100^\circ\text{C}$	-	-	10.0	mA
		$V_R = 4 \text{ V}$	-	10.0	50.0	μA
		$V_R = 4 \text{ V}, T_a = 100^\circ\text{C}$	-	1.0	2.0	mA
		$V_R = 6 \text{ V}$	-	15.0	75.0	μA
		$V_R = 6 \text{ V}, T_a = 100^\circ\text{C}$	-	1.5	3.0	mA
		Typical Junction Capacitance	-	110	-	pF

Note : (1) Pulse Test: Pulse width $\leq 200 \mu\text{s}$, Duty Cycle $\leq 2\%$.