

# 1N5819W

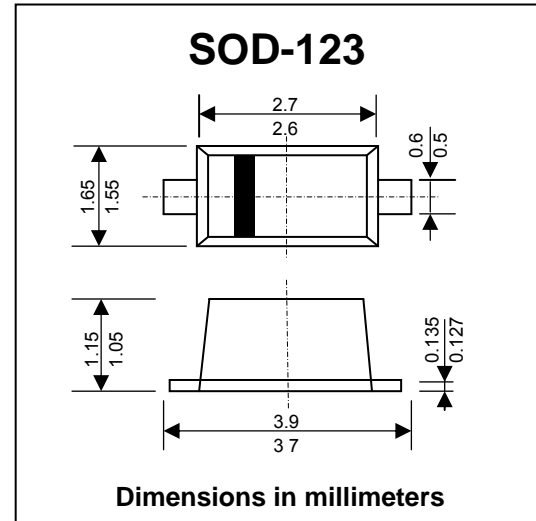
## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### 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 (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Maximum Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Maximum Working Peak Reverse Voltage at $I_R = 1$ 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 (Ta = 25 °C)

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

Note : (1) Pulse Test: Pulse width  $\leq 200$  μs, Duty Cycle  $\leq 2\%$ .