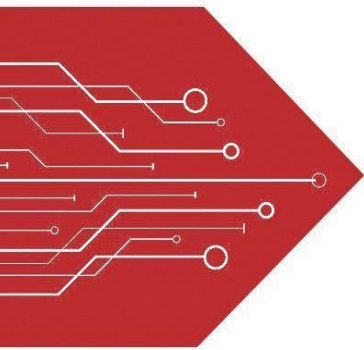


MSKSEMI

SEMICONDUCTOR



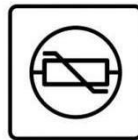
ESD



TVS



TSS



MOV

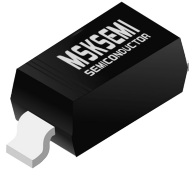


GDT



PLED

Product data sheet



SOD-123

FEATURES

For use in low voltage, high frequency inverters
Free wheeling, and polarity protection applications.

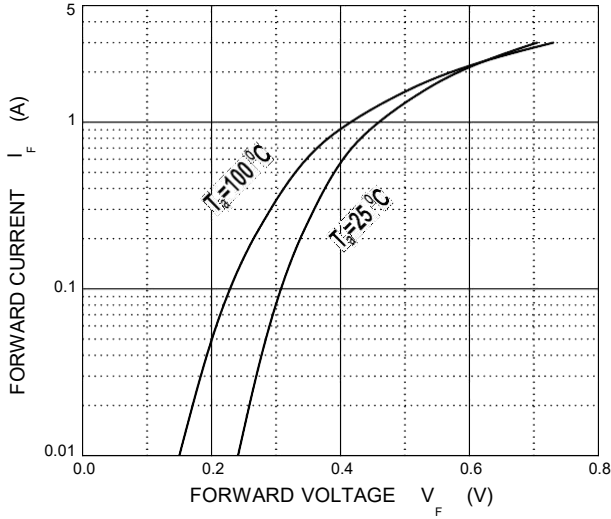
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	1N5819HW-MS	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	40	V
Peak Repetitive Peak 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
Average Rectified Output Current	I_O	1	A
Peak Forward Surge Current @t=8.3ms	I_{FSM}	9	A
Repetitive Peak Forward Current	I_{FRM}	1.5	A
Power Dissipation	P_D	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	°C/W
Junction temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55~+150	°C

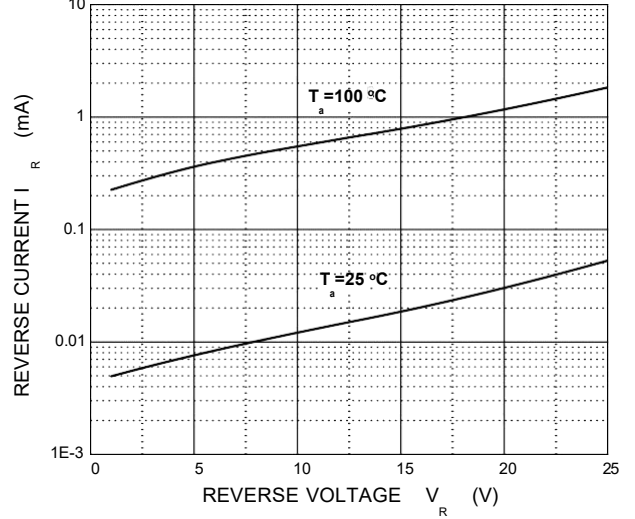
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$	40		V
Reverse voltage leakage current	I_R	$V_R=40V$		1	mA
	V_F	$I_F=1A$ $I_F=3A$		0.6 0.9	V
Diode capacitance	C_D	$V_R=4V, f=1MHz$		120	pF

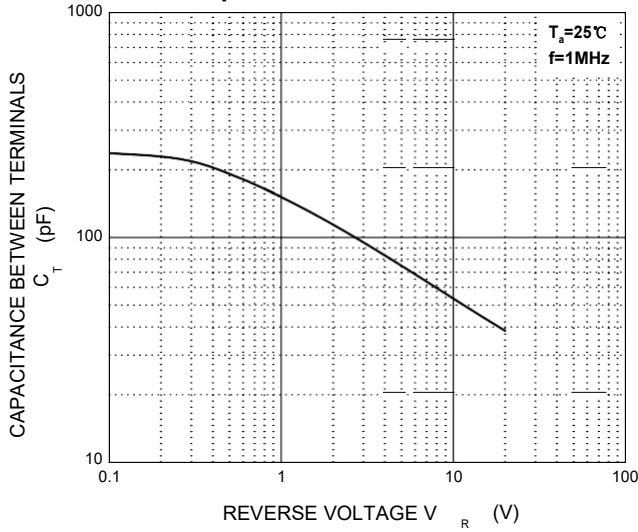
Forward Characteristics



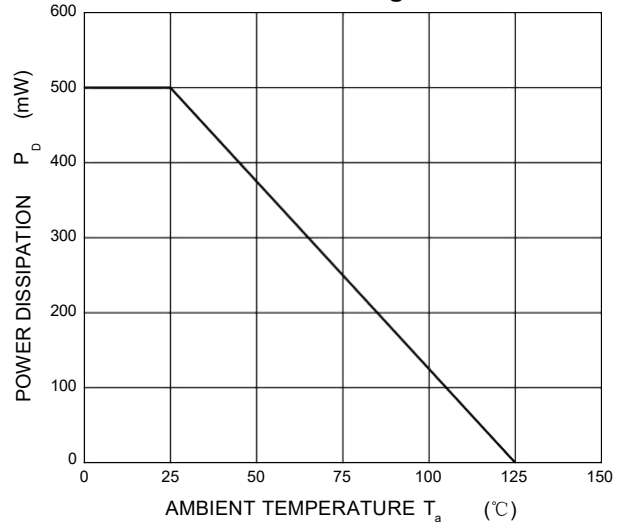
Reverse Characteristics



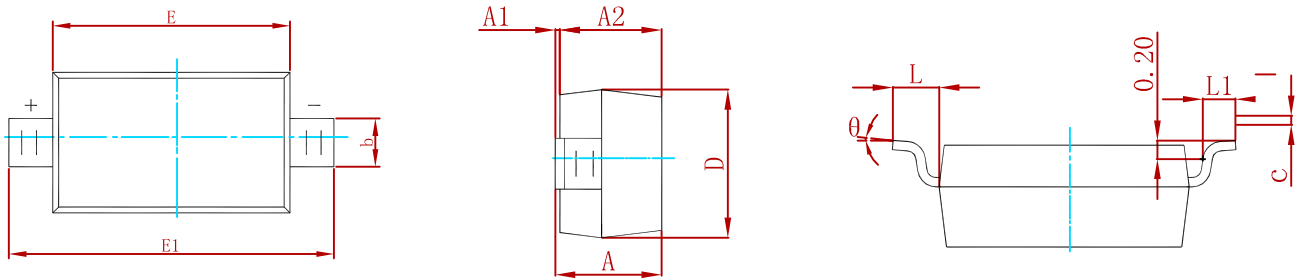
Capacitance Characteristics



Power Derating Curve

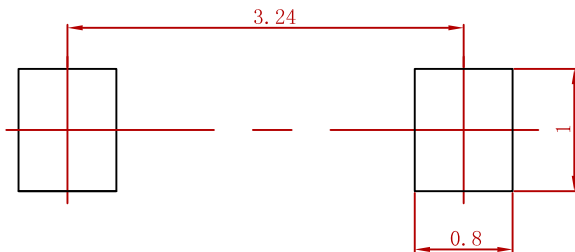


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
1N5819HW-MS	SOD-123	3000

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