1N4148WS

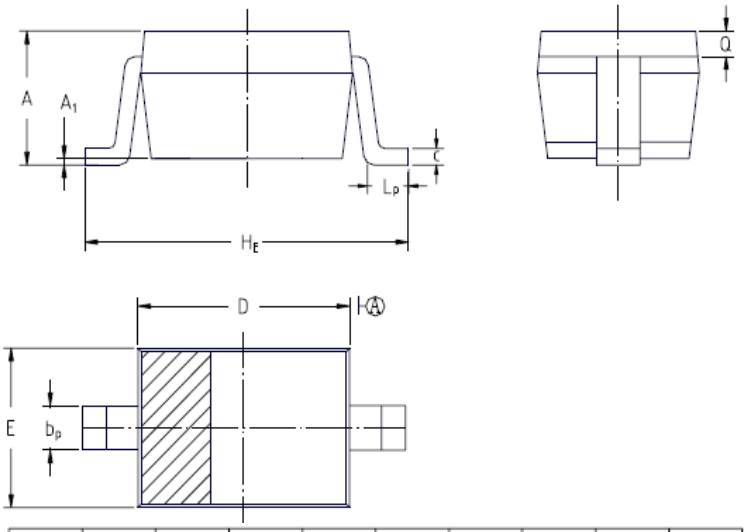
SILICON EPITAXIAL PLANAR SMALL SIGNAL DIODE

FEATURES

- SOD 323 package
- Fast switching
- These diodes are also available in other case style including the DO-35 case with the type designation 1N4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

- Marking:W2

SOD-323



UNIT	A	A_1	b_p	c	D	E	H_E	L_p	Q
mm	1.10 0.80	0.1 0	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30	0.50 0.10	0.15 REF.

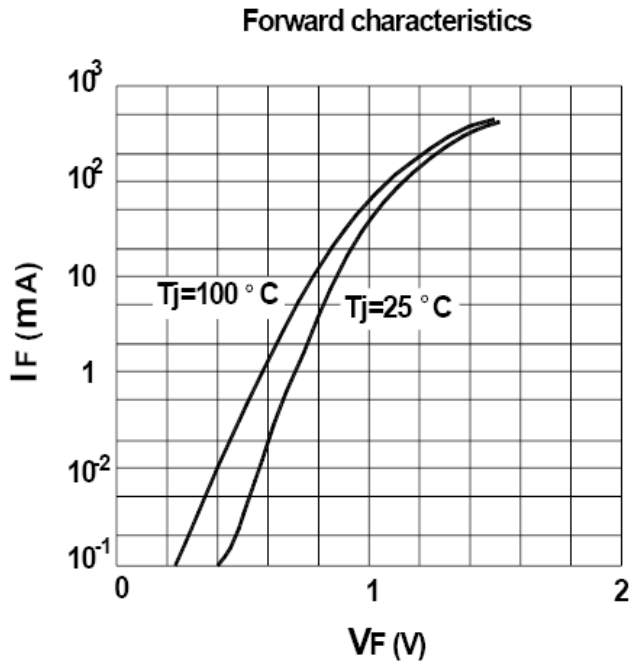
Absolute Maximum Ratings (Ta = 25℃)

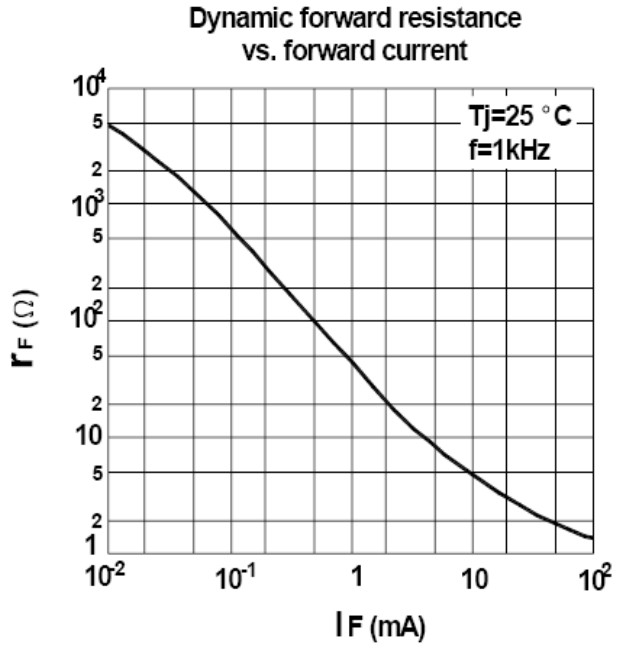
Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	100	V
Reverse voltage	V_R	75	V
Average rectified current half wave Rectification with resistive load f ≧ 50Hz	$I_{F(AV)}$	150*	mA
Surge forward current t<1s Tj = 25 ℃	I_{FSM}	350	mA
Power dissipation	Ptot	200*	mW
Thermal resistance from junction to ambient air	$R_{\theta JA}$	650*	℃/W
Junction temperature	TJ	150	℃
Storage temperature	Tstg	-65 to +150	℃

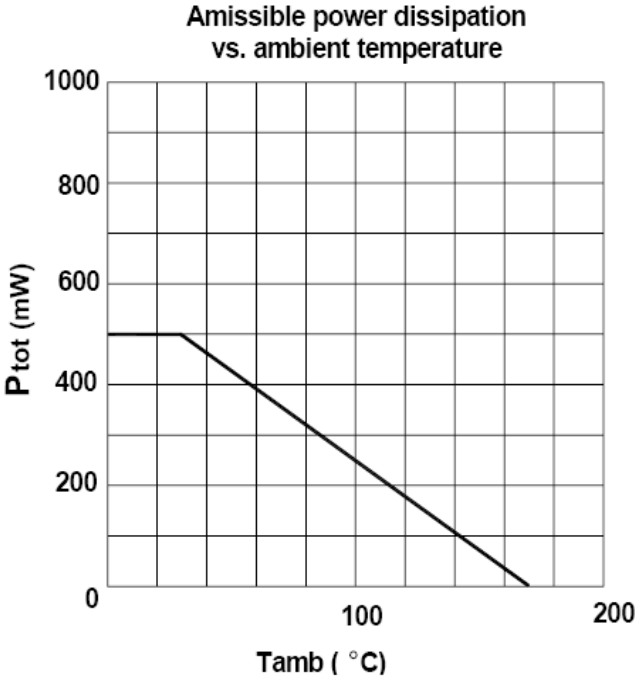
* Valid provided that electrodes are kept at ambient temperature.

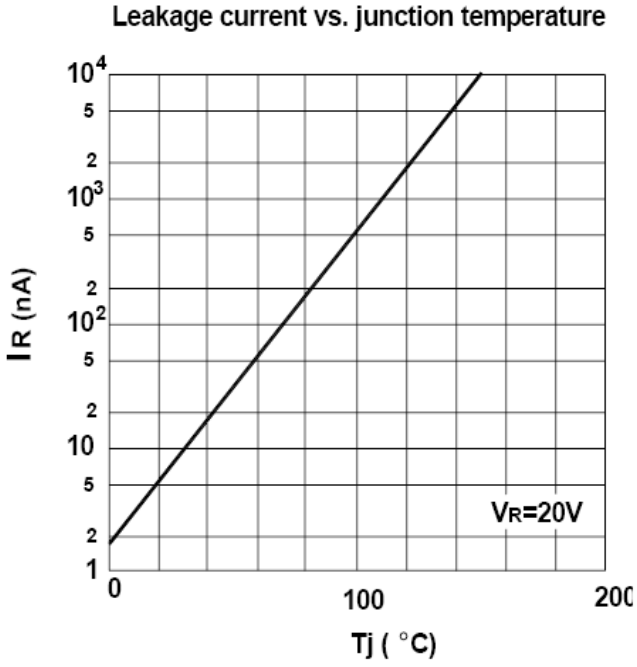
Electrical Characteristics (Ta = 25 ^{O}C)

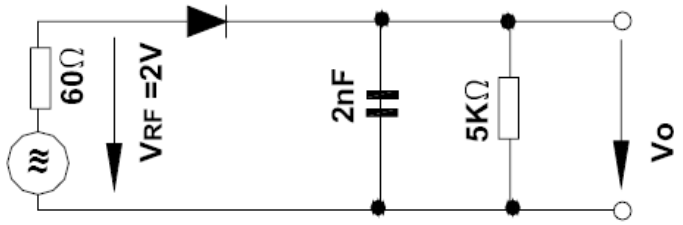
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	VF	-	-	1.0	V	I_F= 10mA
Reverse current	IR	-	-	25	nA	V_R= 20V
				5.0	μA	V_R= 75V
				50	μA	V_R= 20V, T_J= 150℃
Capacitance	Ctot	-	-	4.0	pF	V_F= V_R= 0V
Reverse recovery time	trr	-	-	4.0	ns	V_R= 6V, I_F= 10mA, R_L= 100Ω, I_R= 1mA,
Voltage rise when switching ON (tested with 50 mA pulse)	Vfr	-	-	2.5	V	tp= 0.1μs, rise time<30ns, fp= (5 to 100) kHz
Rectification efficiency	ηv	0.45	-	-	-	f = 100MHz, V_{RF}= 2V





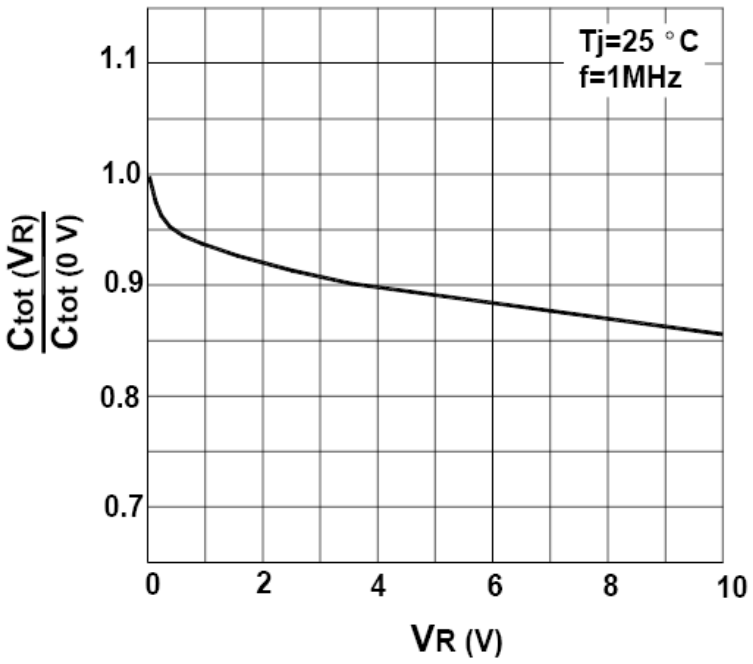






Rectification Efficiency Measurement Circuit

Reverse capacitance vs. reverse voltage



Amissible repetitive peak forward current vs. pulse duration