

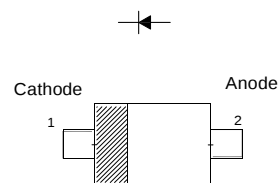


1N4148G Silicon Epitaxial Planar Switching Diode

Features

- SOD-723 package

Marking Code : T4



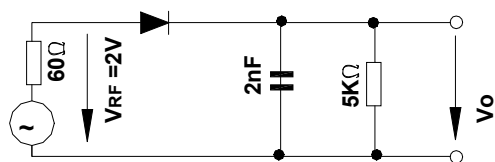
SOD-723

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

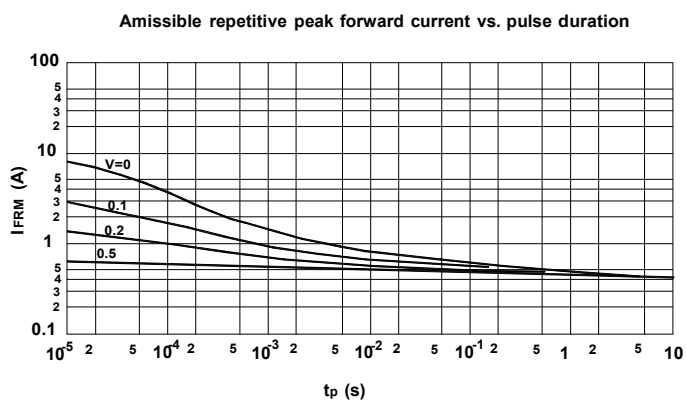
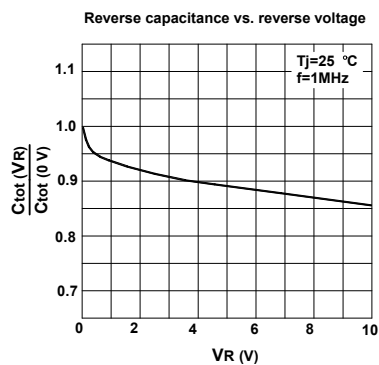
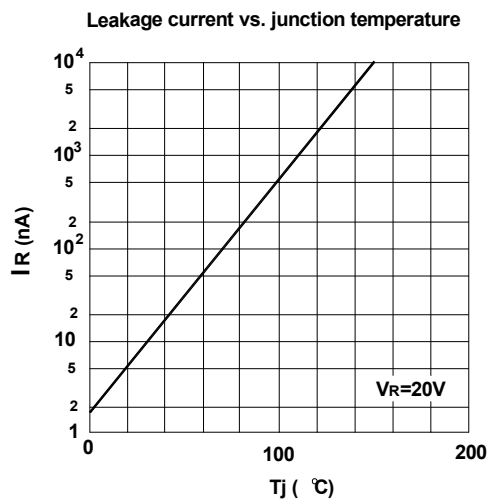
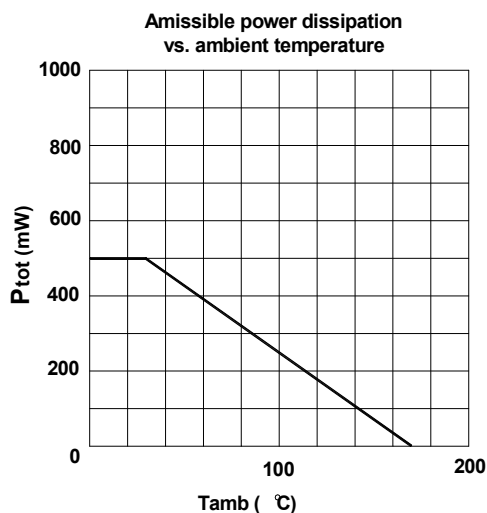
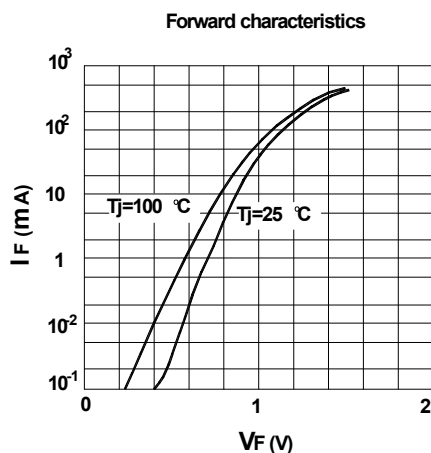
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	100	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at $t = 1\ \mu\text{s}$	I_{FSM}	2	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	$^\circ\text{C/W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1\ \mu\text{A}$	$V_{(BR)R}$	100	-	V
Forward Voltage at $I_F = 10\ \text{mA}$ at $I_F = 50\ \text{mA}$ at $I_F = 150\ \text{mA}$	V_F	- - -	0.855 1 1.25	V
Peak Reverse Current at $V_R = 75\ \text{V}$ at $V_R = 20\ \text{V}$ at $V_R = 75\ \text{V}$, $T_j = 150^\circ\text{C}$ at $V_R = 25\ \text{V}$, $T_j = 150^\circ\text{C}$	I_R	- - - -	1 100 50 30	μA nA μA μA
Total Capacitance at $V_R = 0\ \text{V}$, $f = 1\ \text{MHz}$	C_T	-	8	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R$, $I_F = I_R = 10\ \text{mA}$, $R_L = 100\ \Omega$	t_{rr}	-	4	ns

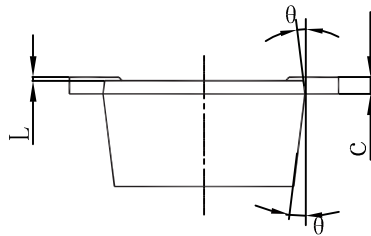
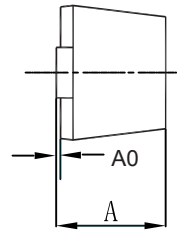
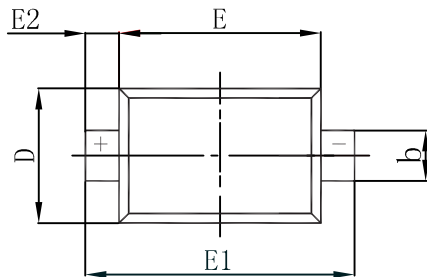


Rectification Efficiency Measurement Circuit



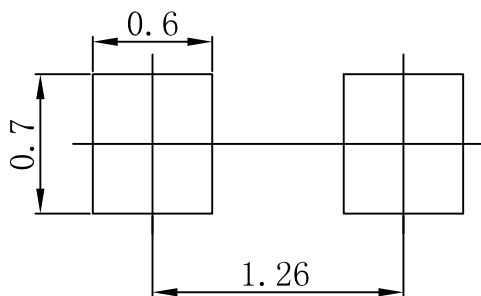


SOD-723 Package Outline Dimensions



Symbol	imensions In Millimeters		imensions In Inches	
	Min	Max	Min	Max
A	0.450	0.550	0.018	0.022
A0	0.000	0.020	0.000	0.008
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.550	0.650	0.022	0.026
E	0.900	1.100	0.035	0.043
E1	1.300	1.500	0.051	0.059
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-723 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.