

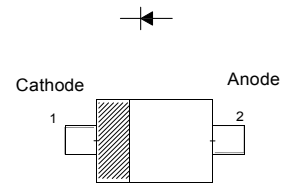


1N4148G Silicon Epitaxial Planar Switching Diode

Features

- SOD-723 package

Marking Code : T4



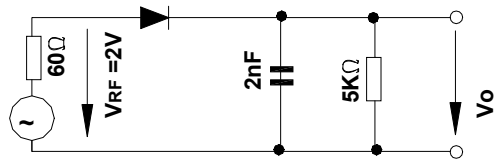
SOD-723

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

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 $t = 1\text{ }\mu\text{s}$	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	$^\circ\text{C}$

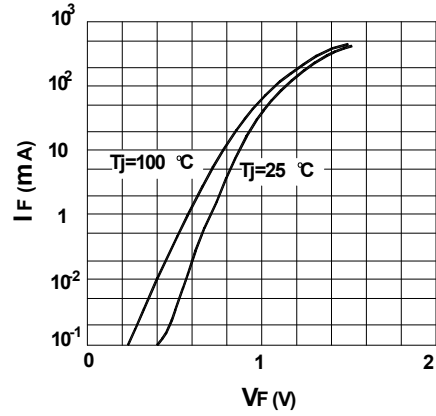
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1\text{ }\mu\text{A}$	$V_{(BR)R}$	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 $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$ at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$	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 $I_{rr} = 0.1 \times I_R, I_F = I_R = 10\text{ mA}, R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns

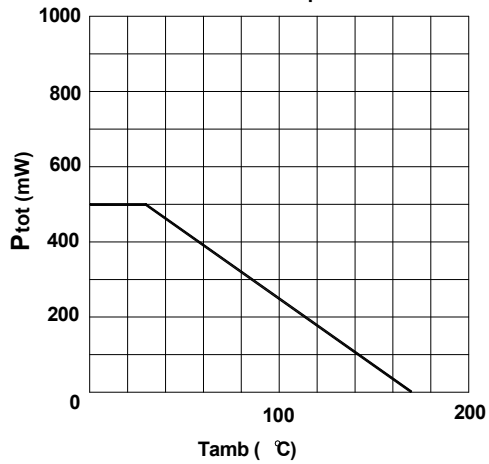


Rectification Efficiency Measurement Circuit

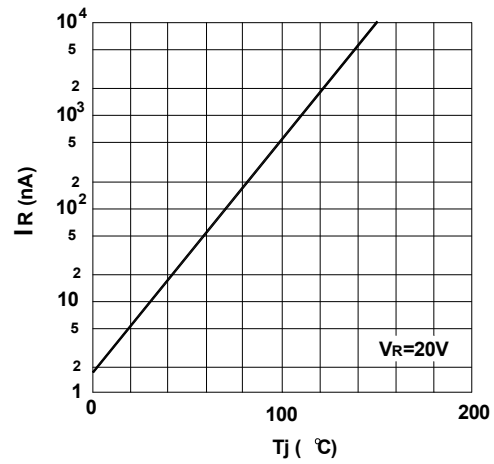
Forward characteristics



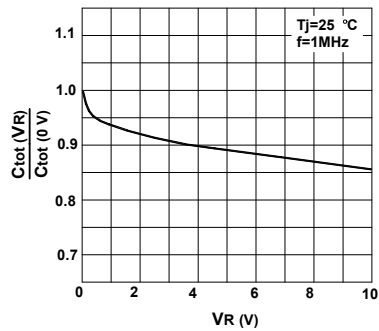
Ammissible power dissipation vs. ambient temperature



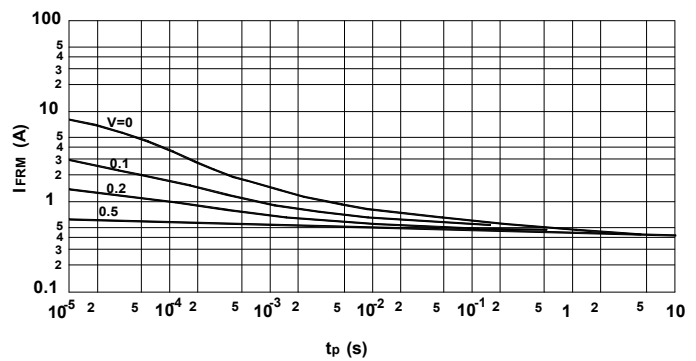
Leakage current vs. junction temperature



Reverse capacitance vs. reverse voltage

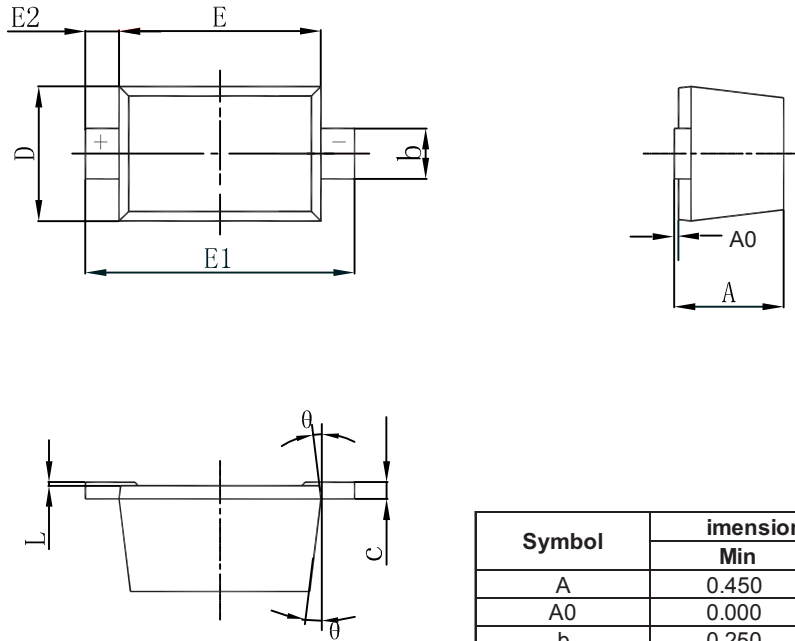


Ammissible repetitive peak forward current vs. pulse duration



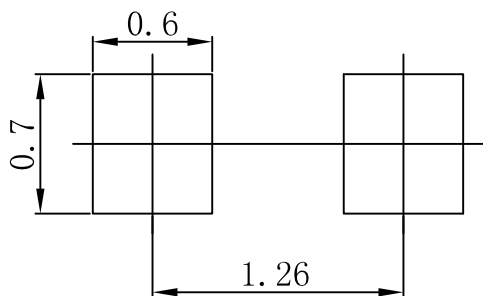


SOD-723 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions 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.