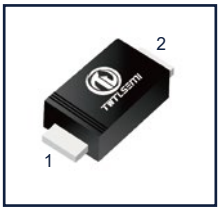
TL-1N4148TG

SOD-723 Silicon Epitaxial Planar Switching Diode

Features

- SOD-723 package
- Small surface mounting type
- High Speed
- High reliability with high surge current handing capability



SOD-723

Equivalent Circuit

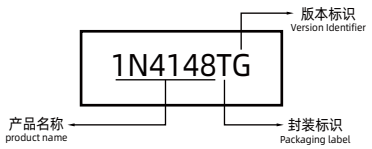
Absolute Maximum Ratings(T_A=25℃)

Symbol	Parameter	Value	Uniat
V_{RM}	Peak Reverse Voltage	100	V
V_R	Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current	150	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current at t =1μs	2	A
P_{tot}	Power Dissipation	400	mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient Air	312	℃/W
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature Range	- 65 to + 150	℃

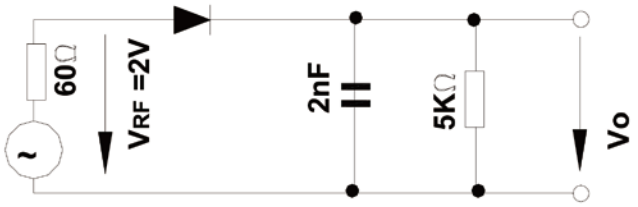
Electrical Characteristics (T_A=25℃ unless otherwise specified)

Symbol	Parameter	Min.	Max.	Uniat
$V_{(BR)R}$	Reverse Breakdown Voltage at I_R =1μA	100	-	V
V_F	Forward Voltage at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	- - -	0.855 1 1.25	V
I_R	Peak Reverse Current at V_R = 75 V at V_R = 20 V at V_R = 75 V, T_J = 150 ℃ at V_R = 25 V, T_J = 150 ℃	- - - -	1 100 50 30	μA nA μA μA
C_T	Total Capacitance at V_R = 0 V, f = 1 MHz	-	8	pF
t_{rr}	Reverse Recovery Time at I_{rr} = 0.1 X I_R, I_F = I_R = 10 mA, R_L = 100 Ω	-	4	℃

Ordering information

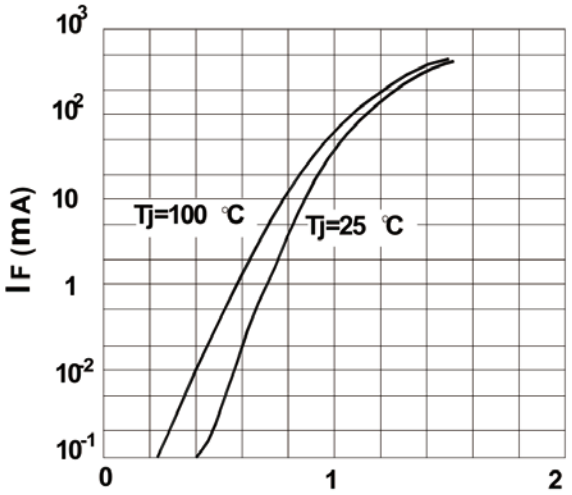
Product ID	Pack	Naming rule	Marking	Qty(PCS)
1N4148TG	SOD-723		A1	8000

Typical Characteristics

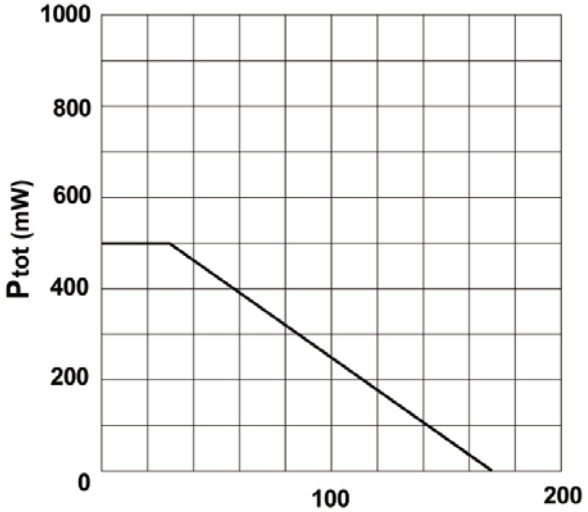


Rectification Efficiency Measurement Circuit

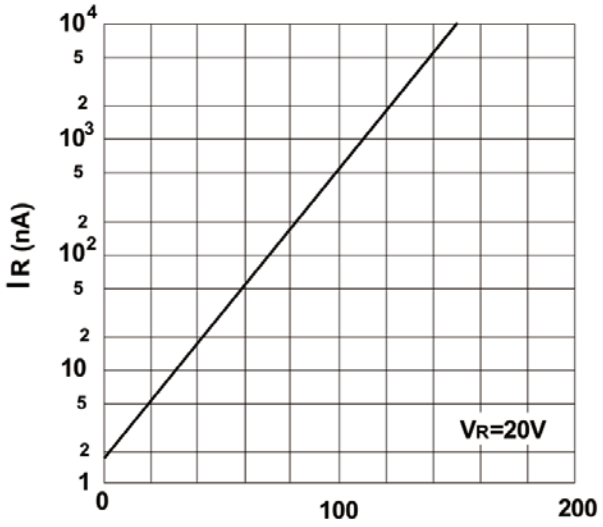
Forward characteristics



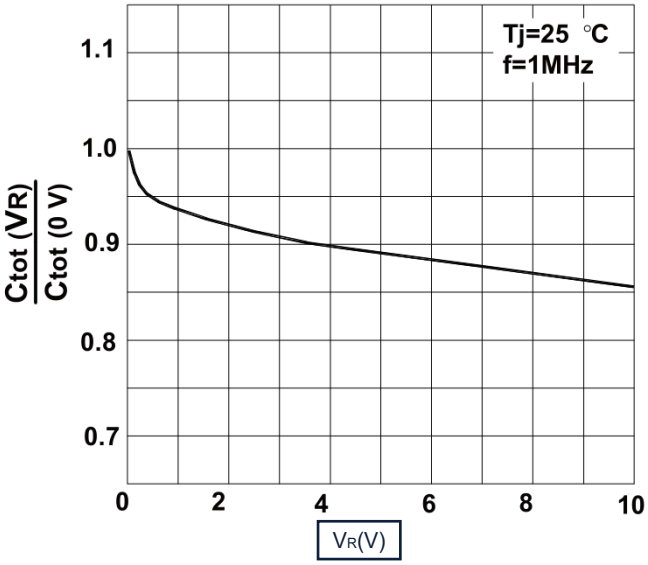
Amissible power dissipation vs. ambient temperature



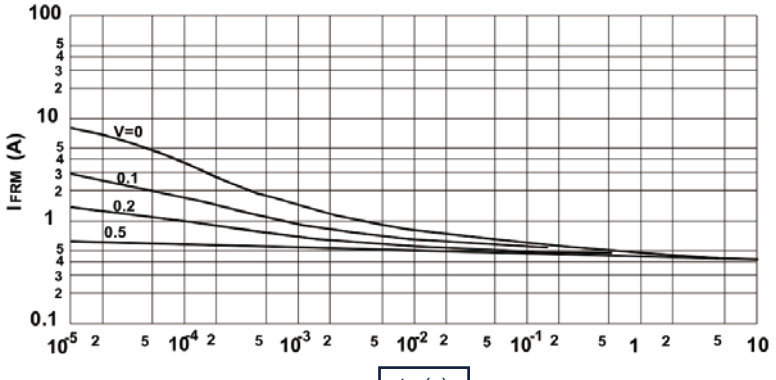
Leakage current vs. junction temperature



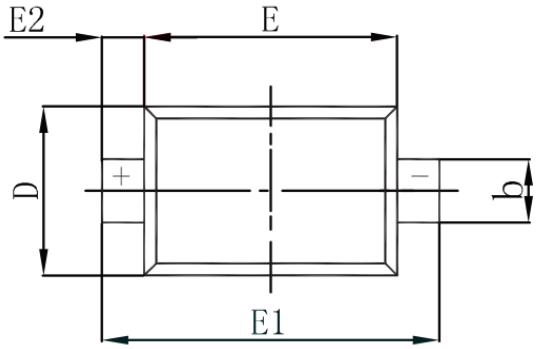
Reverse capacitance vs. reverse voltage

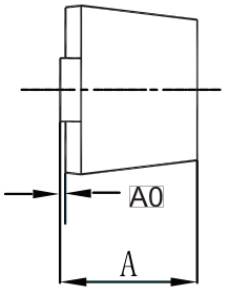


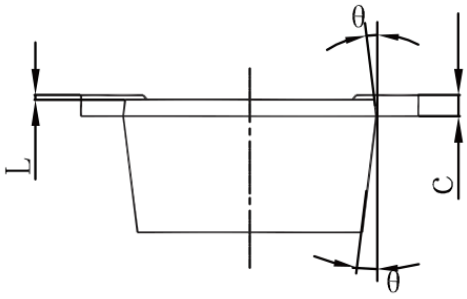
Amissible repetitive peak forward current vs. pulse duration



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	