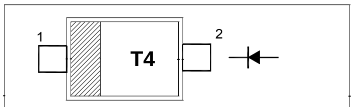
Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: **T4**
Simplified outline SOD-123 and symbol

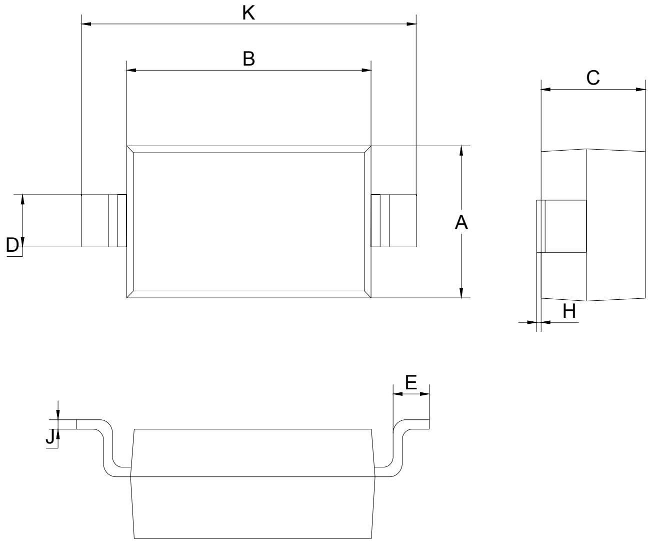
Characteristics at $T_a = 25\ ^oC$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1\ \mu A$	$V_{(BR)R}$	75	-	V
Forward Voltage at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 150$ mA	V_F	- - - -	0.715 0.855 1 1.25	V
Peak Reverse Current at $V_R = 75$ V at $V_R = 20$ V at $V_R = 75$ V, $T_J = 150\ ^oC$ at $V_R = 25$ V, $T_J = 150\ ^oC$	I_R	- - - -	1 25 50 30	µA nA µA µA
Total Capacitance at $V_R = 0$ V, f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R$, $I_F = I_R = 10$ mA, $R_L = 100\ \Omega$	t_{rr}	-	4	ns

Absolute Maximum Ratings ($T_a = 25\ ^oC$)

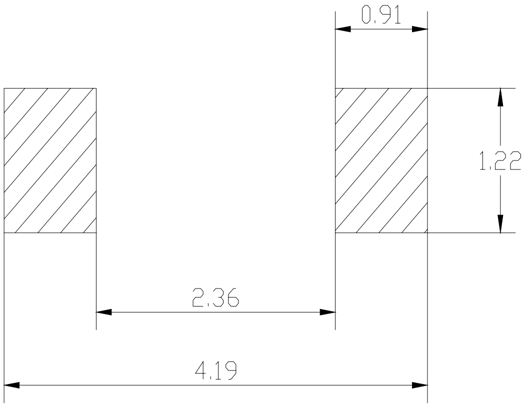
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at t = 1 µs	I_{FSM}	2	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	^{o}C/W
Junction Temperature	T_j	150	^{o}C
Storage Temperature Range	T_{stg}	- 65 to + 150	^{o}C

Plastic surface mounted package SOD-123

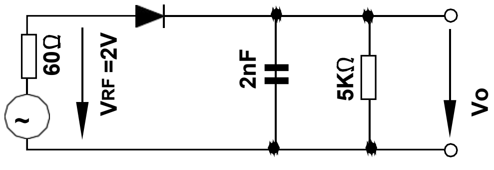


SOD-123		
Dim	Min	Max
A	1.4	1.8
B	2.55	2.85
C	1.15 Typical	
D	0.5	0.6
E	0.3	0.4
H	0.02	0.10
J	0.1 Typical	
K	3.55	3.85
All Dimensions in mm		

SOLDERING FOOTPRINT

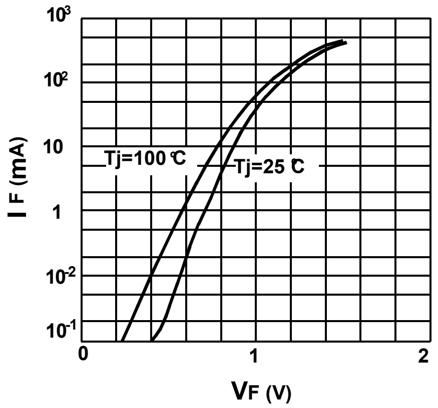


Unit : mm

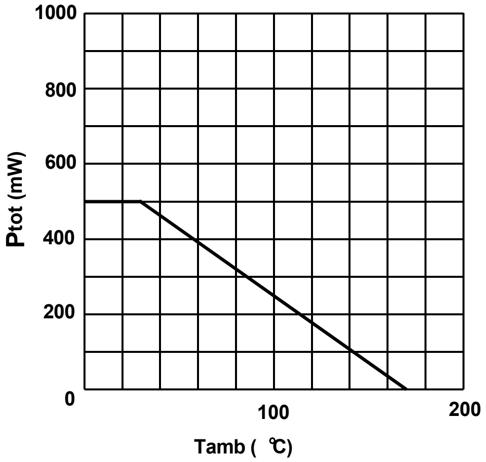


Rectification Efficiency Measurement Circuit

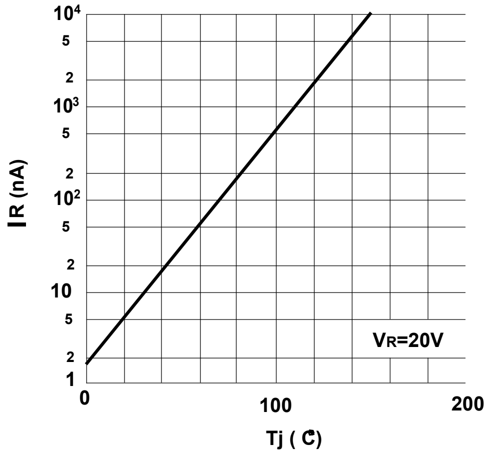
Forward characteristics



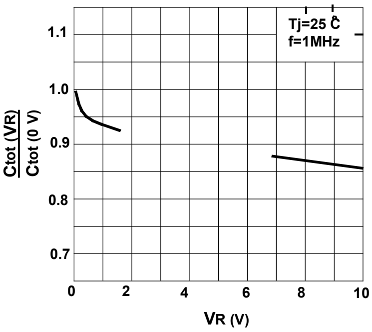
Amissible power dissipation vs. ambient temperature



Leakage current vs. junction temperature



Reverse capacitance vs. reverse voltage



Amissible repetitive peak forward current vs. pulse duration