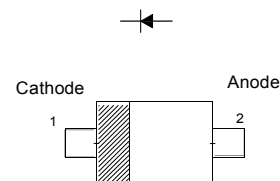


Silicon Epitaxial Planar Switching Diode

Features

- SOD-123 package
- Fast switching
- These diodes are also available in other case style including the DO-35 case with the type designation 1N4148



SOD-123

Marking Code : T4

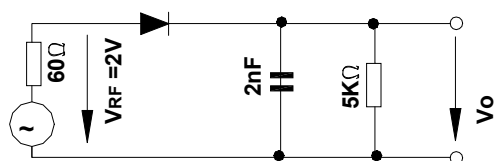
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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	$^\circ\text{C}$

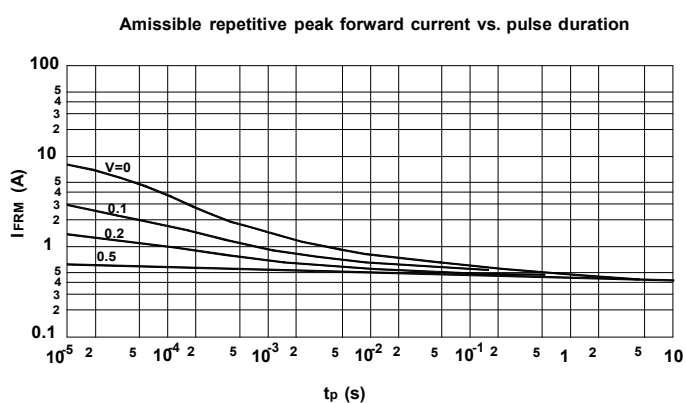
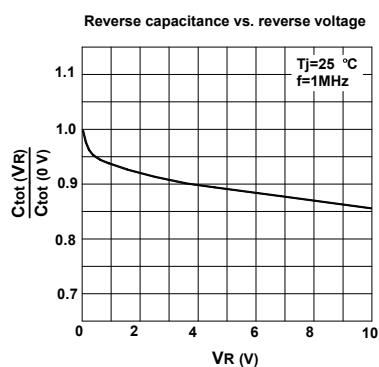
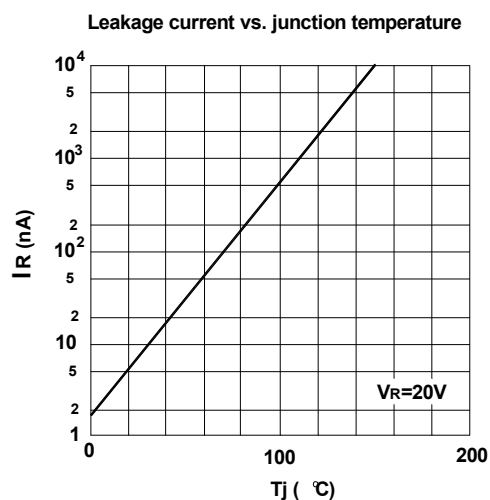
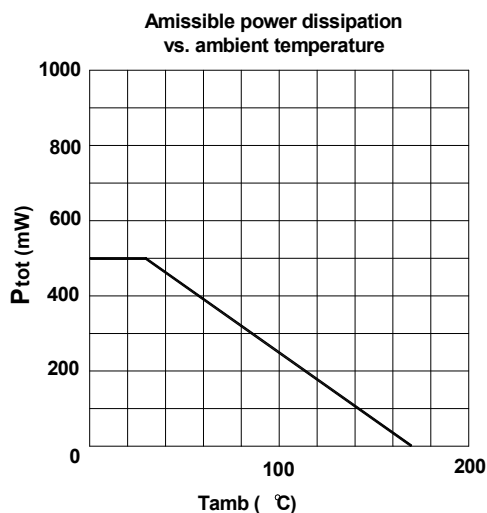
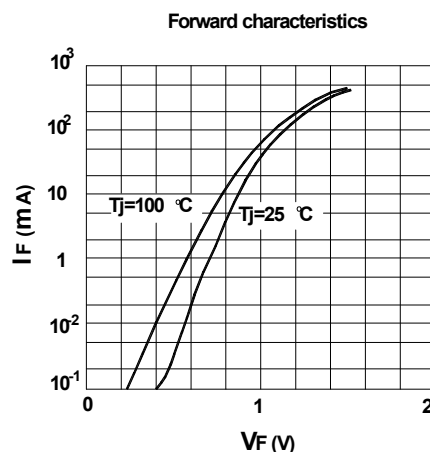
Characteristics at $T_a = 25^\circ\text{C}$

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

Silicon Epitaxial Planar Switching Diode



Rectification Efficiency Measurement Circuit

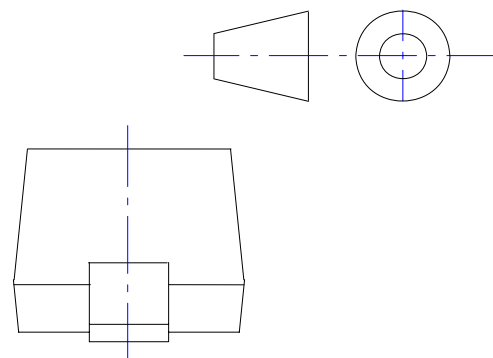
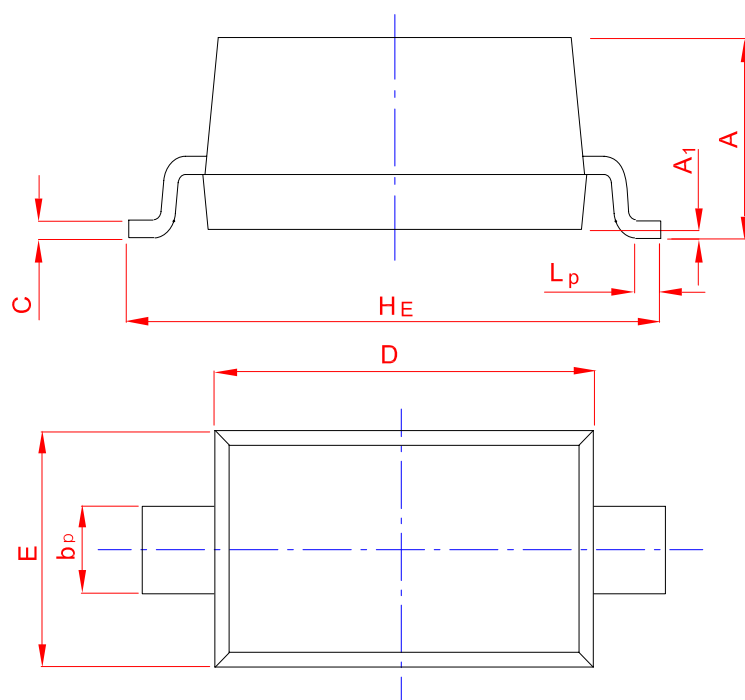


Silicon Epitaxial Planar Switching Diode

SOD-123

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20 0.80	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20