



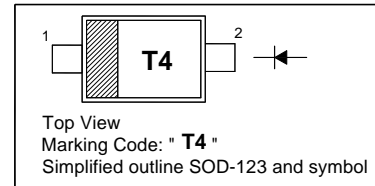
Silicon Epitaxial Planar Switching Diode

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, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

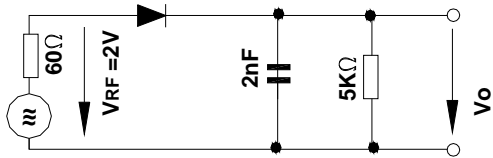


Absolute Maximum Ratings (T_a = 25°C)

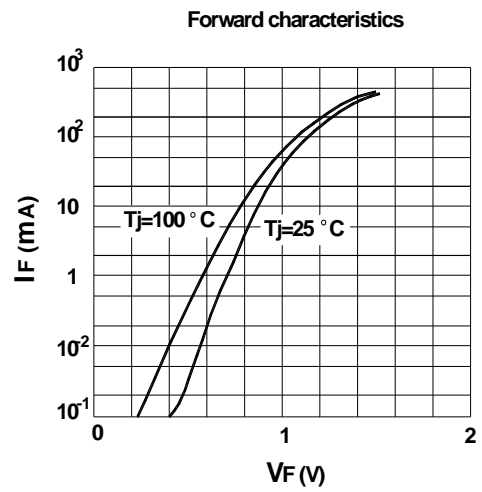
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V _{RM}	100	V
Reverse Voltage	V _R	75	V
Average Rectified Forward Current	I _{F(AV)}	150	mA
Non-repetitive Peak Forward Surge Current	I _{FSM}	at t = 1 s 0.5	A
		at t = 1 ms 1	
		at t = 1 μs 4	
Power Dissipation	P _{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	R _{θJA}	312	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	- 65 to + 150	°C

Characteristics at T_a = 25°C

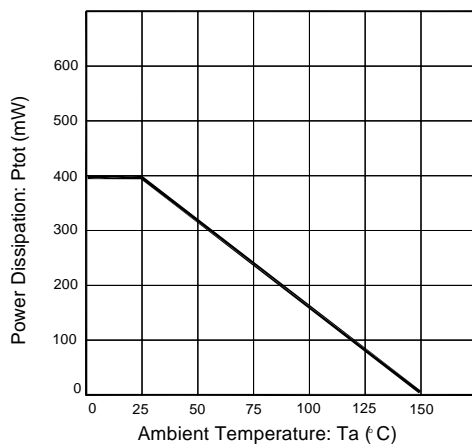
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	V _F	-	at I _F = 1 mA 0.715	V
			at I _F = 10 mA 0.855	
			at I _F = 50 mA 1	
			at I _F = 150 mA 1.25	
Peak Reverse Current	I _R	-	at V _R = 75 V 1	μA
			at V _R = 20 V 25	nA
			at V _R = 75 V, T _J = 150°C 50	μA
			at V _R = 25 V, T _J = 150°C 30	μA
Total Capacitance	C _T	-	2	pF
Reverse Recovery Time	t _{rr}	-	4	ns
at I _{rr} = 0.1 X I _R , I _F = I _R = 10 mA, R _L = 100 Ω				



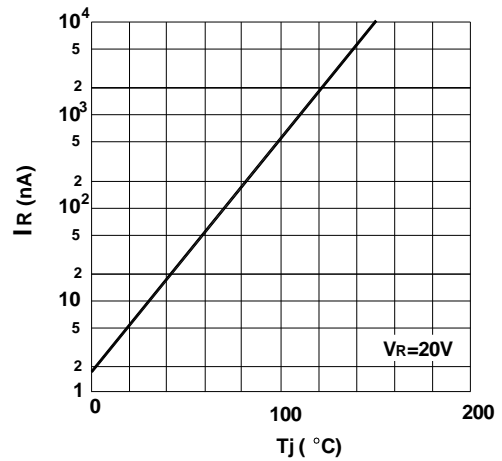
Rectification Efficiency Measurement Circuit



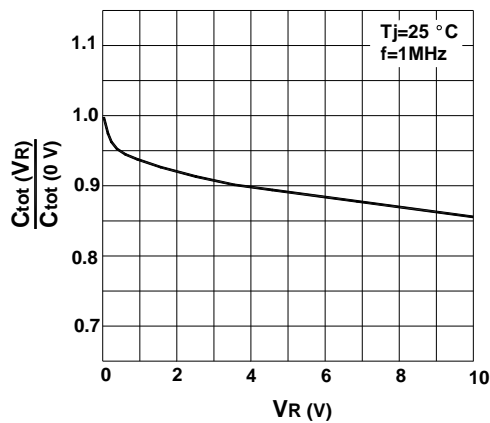
Power Dissipation vs Ambient Temperature



Leakage current vs. junction temperature



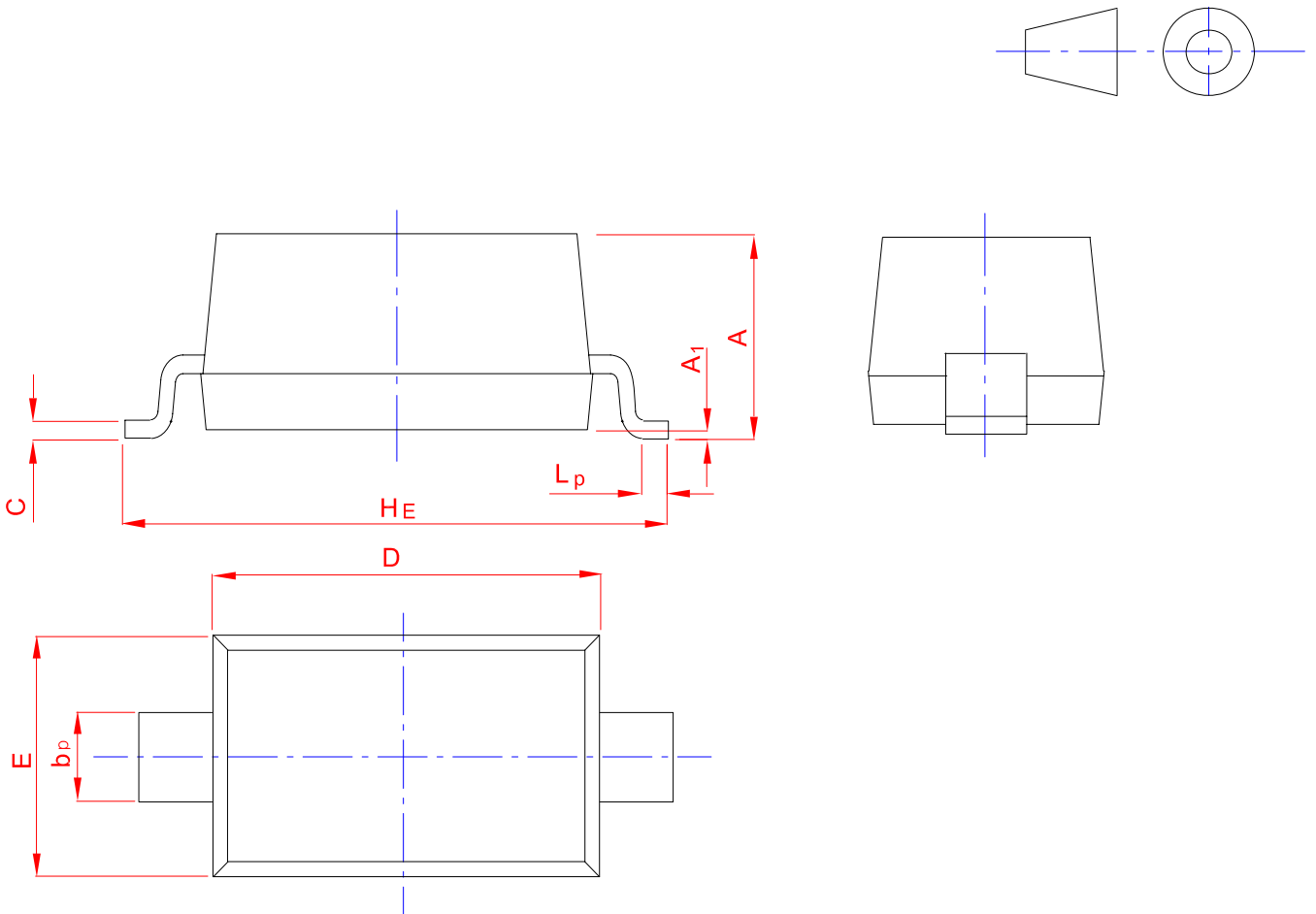
Reverse capacitance vs. reverse voltage





Plastic surface mounted package; 2 leads

PACKAGE OUTLINE SOD-123



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20	0.60	0.135	2.75	1.65	3.85	0.10	0.50
	0.90	0.50	0.100	2.55	1.55	3.55	0.01	0.20