

SOD-523 Plastic-Encapsulate Diode

Features

- Low Forward Voltage Drop
- Low Reverse Capacitance
- Low Reverse Recovery Time
- Guard Ring Construction for Transient Protection



Mechanical Data

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

Marking: S4 SOD-523

Maximum Ratings & Thermal Characteristics (T_A=25°C unless otherwise noted)

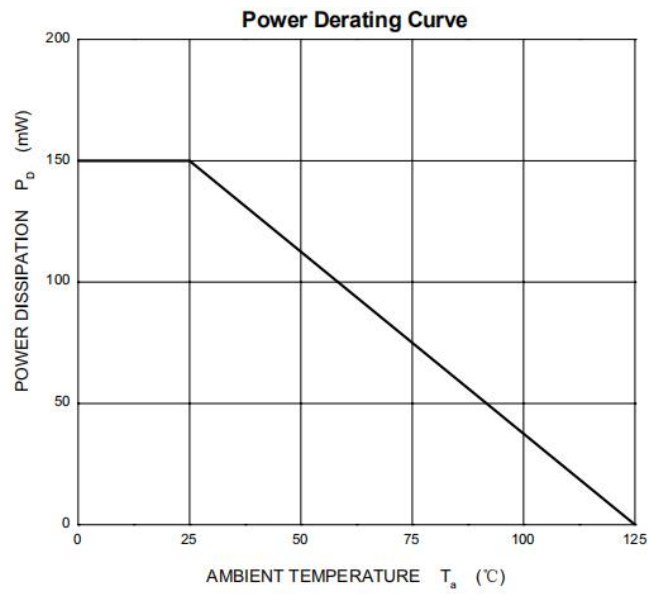
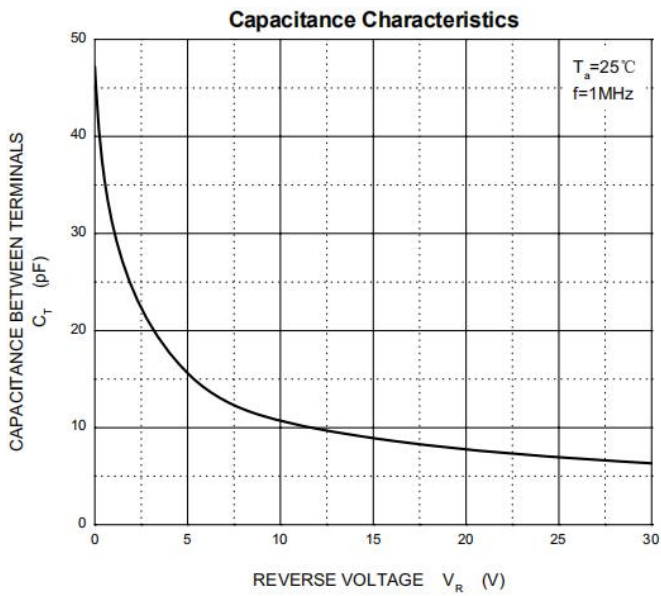
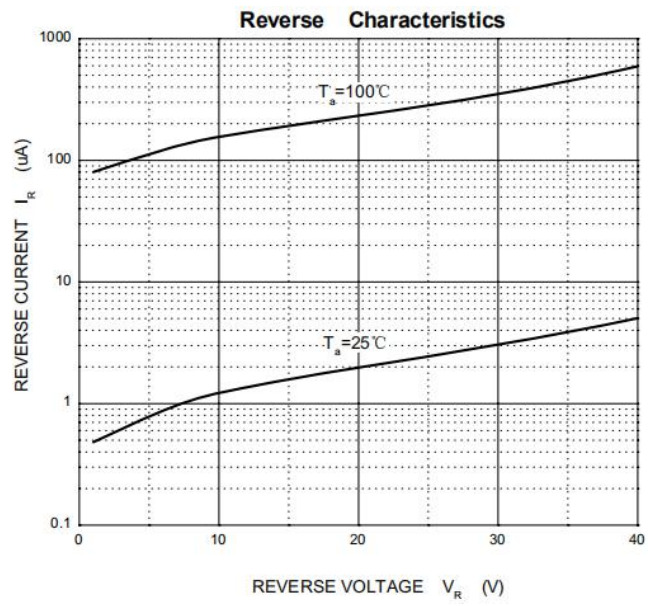
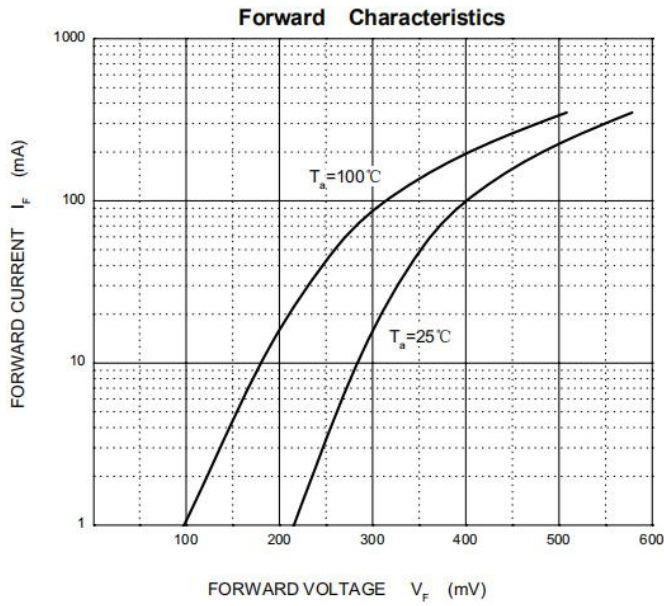
Parameters	Symbol	Value	Unit
DC Blocking Voltage	V _R	40	V
Working Peak Reverse Voltage	V _{RWM}	40	V
Maximum repetitive peak reverse voltage	V _{RRM}	40	V
Maximum RMS voltage	V _{RMS}	28	V
Non-repetitive Peak Forward Current	I _{FM}	350	mA
Peak forward surge current 8.3 ms single half sine-wave	I _{FSM}	2	A
Power Dissipation	P _D	150	mW
Typical thermal resistance	R _{θJA}	667	°C/W
Storage temperature range	T _{STG}	-55-+150	°C
Junction temperature	T _J	125	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbols	Test Condition	Limits			Unit
			Min	Typ	Max	
Reverse Breakdown Voltage	V _R	IR=100uA	40			V
Maximum reverse current	I _R	VR=30V			5	uA
		VR=20V			2	
		VR=10V			1	
Maximum forward voltage	V _F	IF=1mA		0.27		V
		IF=5mA		0.32		
		IF=20mA			0.37	
		IF=200mA			0.6	
Type junction capacitance	C _j	VR=0V, f=1MHZ			50	pF
Reverse Recover Time	T _{rr}	IF = IR = 200mA, I _{rr} =0.1xI _R , RL=100Ω			10	nS

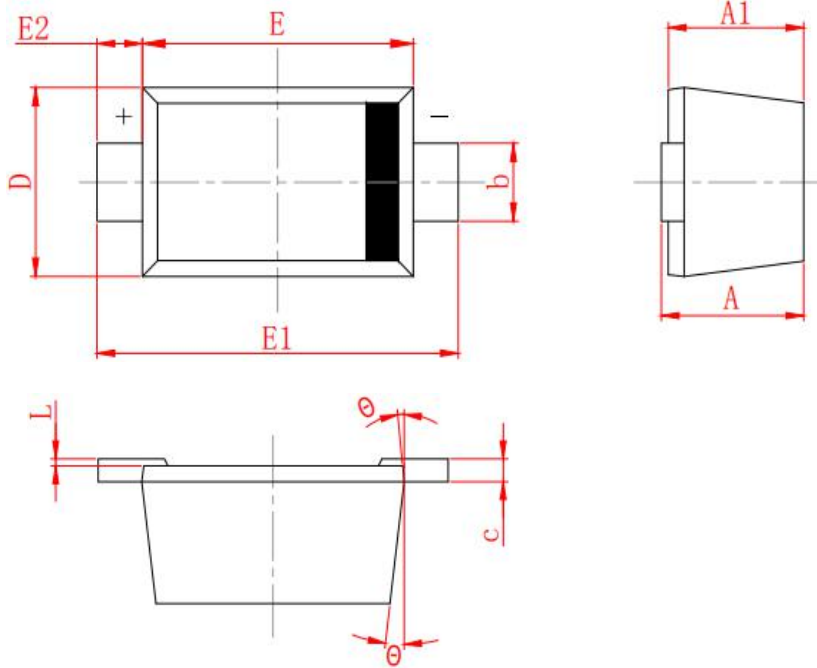
Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

millimeters



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
θ	7° REF	

Revision History

Document Version	Date of release	Description of changes
Rev.A	2020.06.17	First issue

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