

Feature

- Low Forward Voltage Drop

Application

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications

SOD-523



MARKING:4A

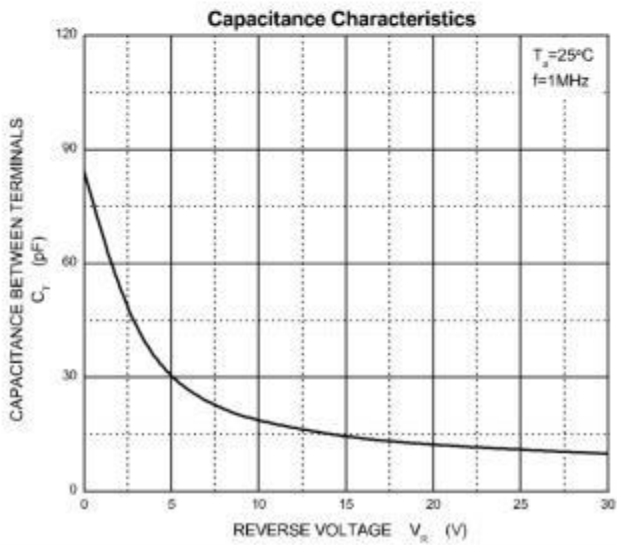
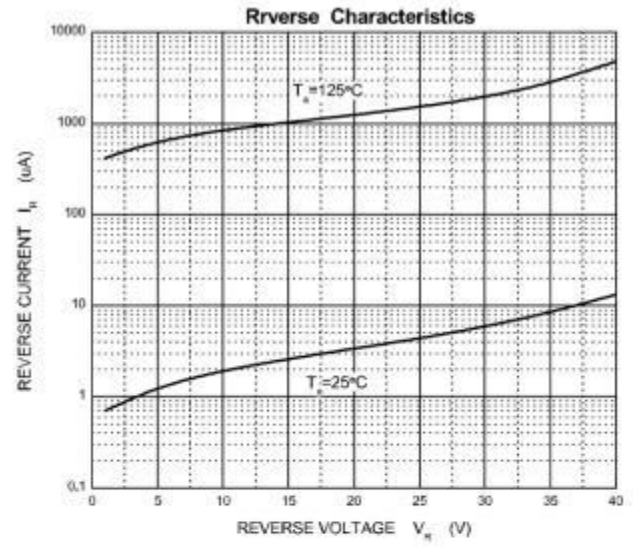
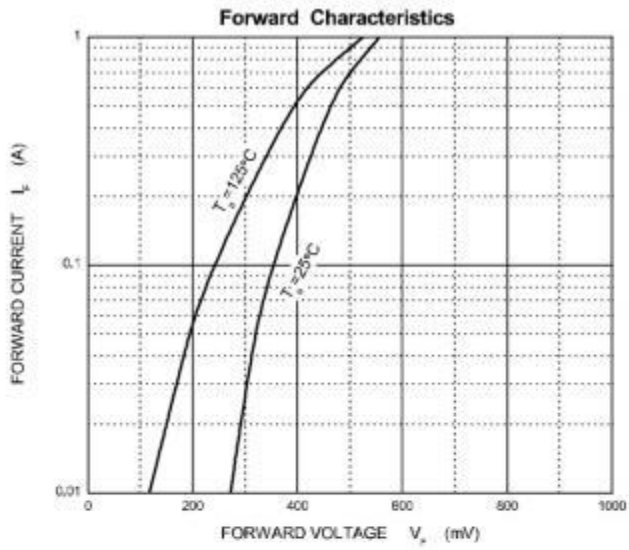
ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Mean rectifying current	I_o	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	7	A
Power Dissipation	P_D	0.5	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	$-40 \sim +125$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$

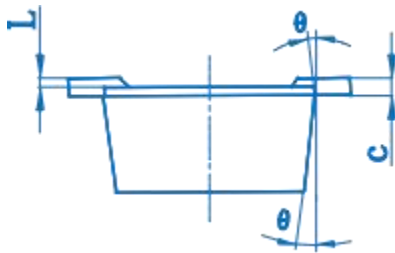
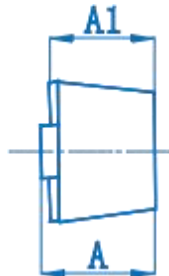
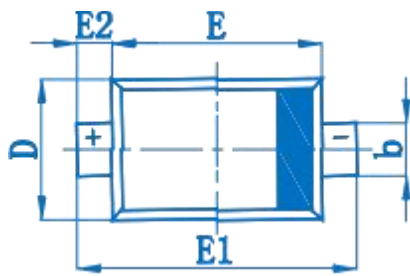
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	V_{BR}	$I_R = 1\text{mA}$	40			V
Reverse current	I_R	$V_R = 40\text{V}$		10	40	μA
Forward voltage	V_F	$I_F = 0.1\text{A}$		0.35	0.38	V
		$I_F = 0.2\text{A}$		0.37	0.40	V
		$I_F = 0.5\text{A}$		0.42	0.49	V
		$I_F = 0.7\text{A}$		0.47	0.55	V
		$I_F = 1\text{A}$		0.51	0.61	V
Total capacitance	C_{tot}	$V_R = 10\text{V}, f=1\text{MHz}$		19		pF

Typical Characteristics

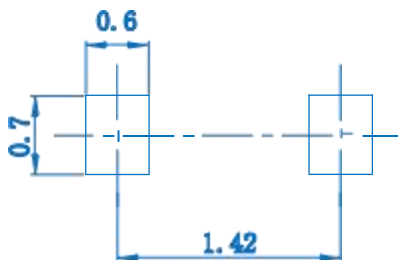


SOD-523 Package Outline Dimensions



symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.