

FEATURES

- High-Speed Switching Applications
- Lead Finish: 100% Matte Sn (Tin)
- Qualified Reflow Temperature: 260 °C
- Extremely Small SOD-523 Package

SOD-523



MARKING: A6



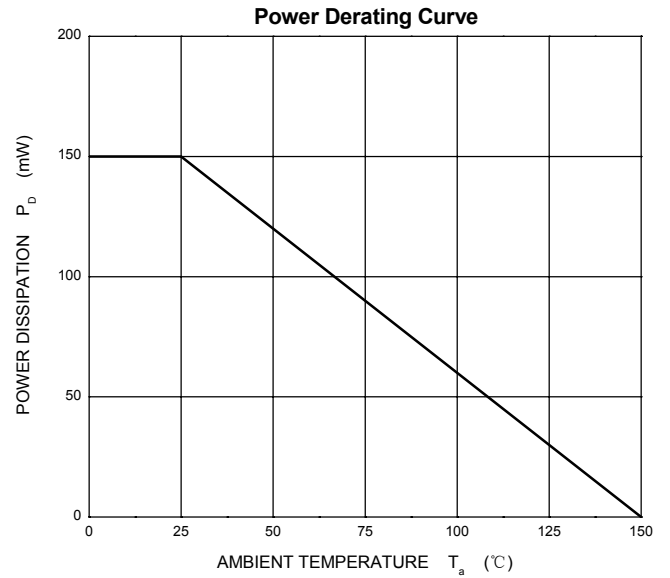
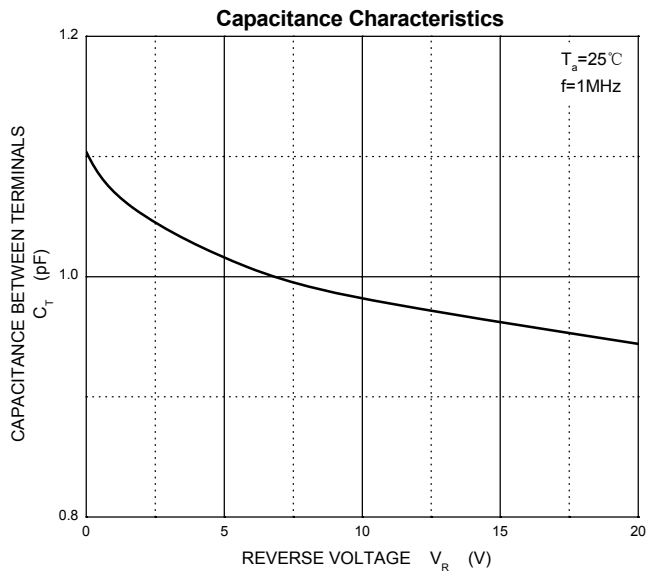
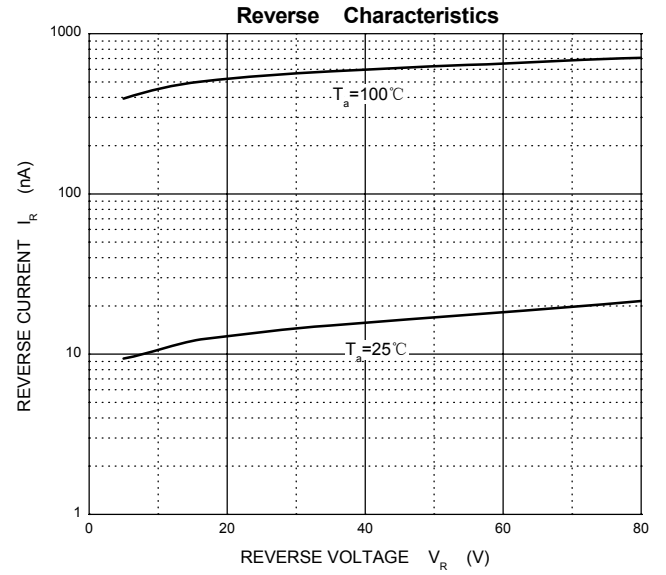
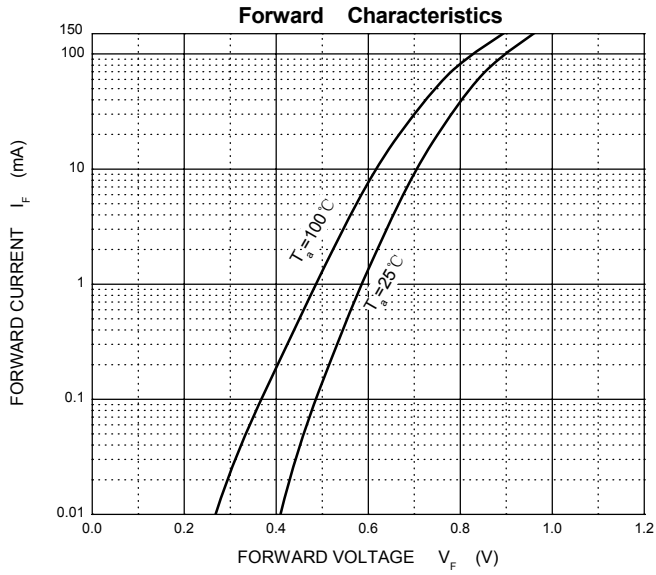
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	75	V
I_F	Forward Continuous Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t = 8.3\text{ms}$	2	A
P_D	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	833	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

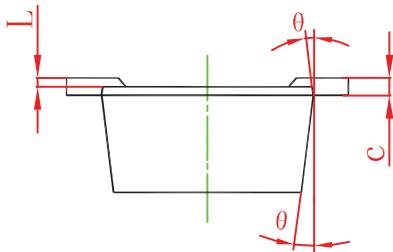
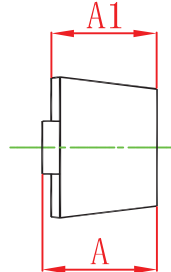
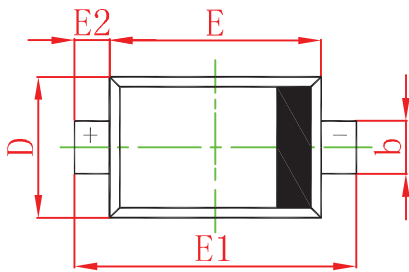
Electrical Ratings @ $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	75				$I_R = 100\mu\text{A}$
Forward voltage	V_{F1}			715	mV	$I_F = 1\text{mA}$
	V_{F2}			855		$I_F = 10\text{mA}$
	V_{F3}			1000		$I_F = 50\text{mA}$
	V_{F4}			1250		$I_F = 150\text{mA}$
Reverse recovery Time	t_{rr}			6.0	ns	$I_F = I_R = 10\text{mA}$, $R_L = 50\Omega$
Reverse current	I_R			1.0	μA	$V_R = 75\text{V}$
Forward recovery voltage	V_{FR}			1.75	V	$I_F = 10\text{mA}$, $t_r = 20\text{ns}$
Diode capacitance	C_D			2.0	pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$
Stored charge	Q_s			45	pC	$I_F = 10\text{mA}$, $V_R = 5.0\text{V}$, $R_L = 500\Omega$

Typical Characteristics

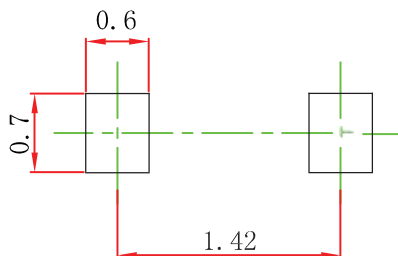


SOD-523 Package Outline Dimensions



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: ± 0.05 mm.
3. The pad layout is for reference purposes only.