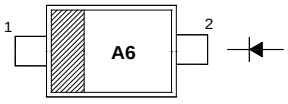
Plastic-Encapsulate Diodes

Swithching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "**A6**"
Simplified outline SOD-523 and symbol

FEATURES

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

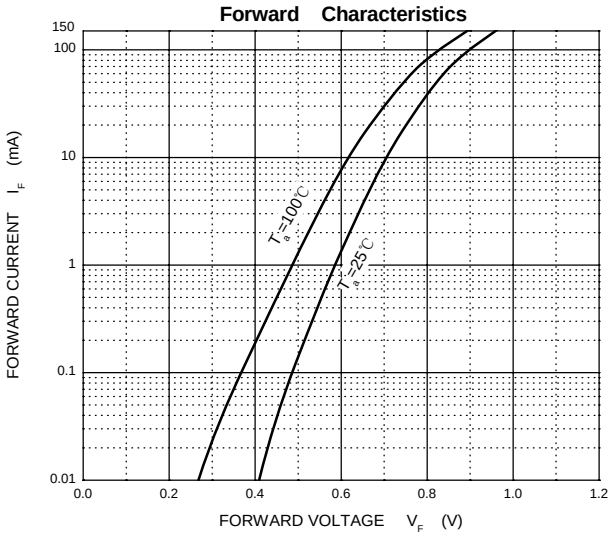
MARKING: A6

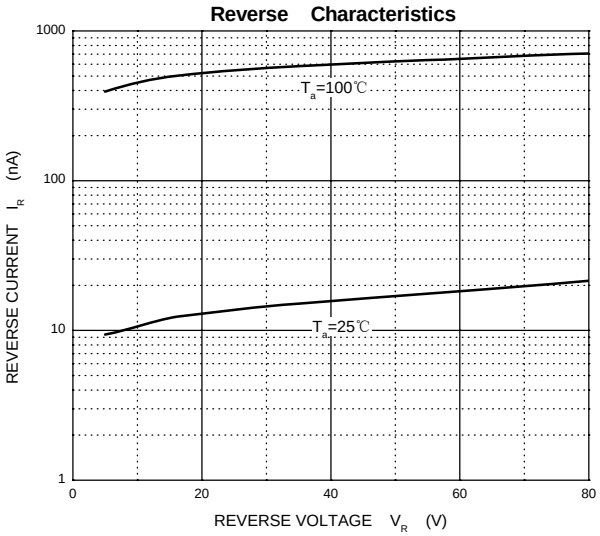
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

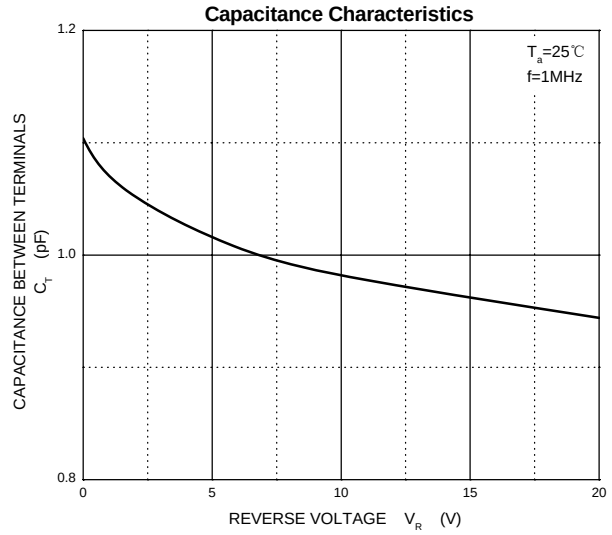
Parameter	Symbol	Limit	Unit
DC Reverse Voltage	V_R	75	V
Forward Current	I_F	200	mA
Pak Forward Surge Current	$I_{FM(surge)}$	500	mA
Total Device Dissipation	P_D	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction and Storage Temperature	T_j ,T_{stg}	150	℃

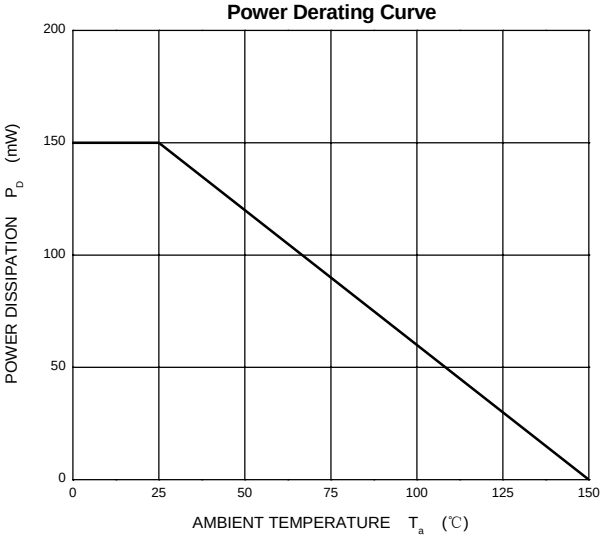
Electrical Ratings @Ta=25℃

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


Forward Characteristics
FORWARD CURRENT I_F (mA)
150
100
10
1
0.1
0.01
0.0
0.2
0.4
0.6
0.8
1.0
1.2
T_a=100℃
T_a=25℃
FORWARD VOLTAGE V_F (V)


Reverse Characteristics
REVERSE CURRENT I_R (nA)
1000
100
10
1
0
20
40
60
80
T_a=100℃
T_a=25℃
REVERSE VOLTAGE V_R (V)


Capacitance Characteristics
CAPACITANCE BETWEEN TERMINALS C_T (pF)
1.2
1.0
0.8
0
5
10
15
20
T_a=25℃
f=1MHz
REVERSE VOLTAGE V_R (V)


Power Derating Curve
POWER DISSIPATION P_D (mW)
200
150
100
50
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE T_a (℃)