

# DAN222

Reverse Voltage 80 Volts Forward Current – 0.1 Amper

## 1. Description

FAST SWITCHING DIODES

## 2. Features

- Four types of packaging are available
- High speed
- Suitable for high packing density layout
- High reliability

## 3. Application

- General purpose switching application

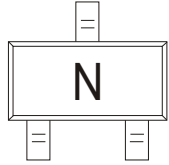
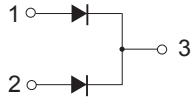
## 4. Mechanical Data

- Case : SOT-523 Molded Plastic
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking: N

## 5. Absolute Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RM}$	80	V
Reverse Voltage	$V_R$	80	V
Forward continuous current	$I_{FM}$	300	mA
Average rectified output current	$I_o$	100	mA
Non-repetitive Peak Forward Surge Current@ $t=8.3\text{ms}$	$I_{FSM}$	2	A
Power Dissipation	$P_D$	150	mW
Thermal resistance junction to ambient Junction	$R_{JA}$	833	$^{\circ}\text{C}/\text{W}$
Storage Temperature	$T_J, T_{stg}$	-55~+150	$^{\circ}\text{C}$

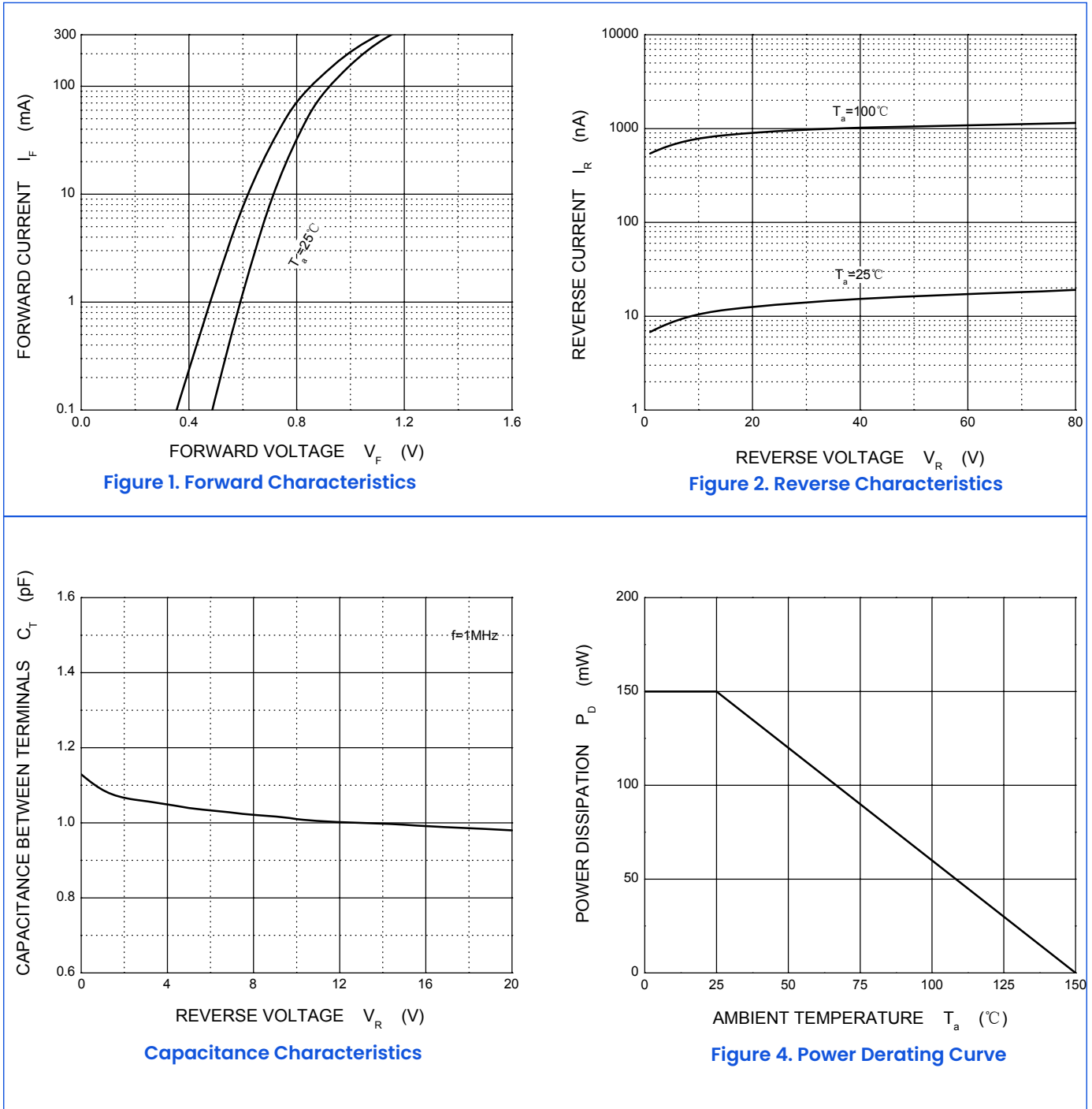
## 6. Pinning information

Pin	Symbol	Description	Simplified outline	Equivalent Circuit	Marking	Package
1	+	Anode			N	SOT-523
2	+	Anode				
3	-	Cathode				

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

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{BR}$	$I_R=0.1\text{mA}$	80	—	—	V
Forward voltage	$V_F$	$I_F=100\text{mA}$	—	—	1.2	V
Reverse voltage leakage current	$I_R$	$V_R=70\text{V}$	—	—	0.1	$\mu\text{A}$
Diode capacitance	$C_D$	$V_R=0\text{V}$ , $f=1.0\text{MHz}$	—	—	3.5	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=10\text{mA}$ , $V_R=6\text{V}$	—	—	4	ns

## 8. Typical Characteristics



The curve above is for reference only.

Reverse Voltage 100 Volts Forward Current - 0.15 Ampere

## 9. Outline Drawing

**SOD-523 Package Outline Dimensions**

Sym ol	imensions In Millimeters		imensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.770	0.020	0.031
b	0.250	0.400	0.010	0.016
c	0.080	0.150	0.003	0.006
D	0.750	1.000	0.030	0.040
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.150	0.250	0.006	0.010
L	0.000	0.070	0.000	0.003
K	0°	8°	0°	8°

## 10. 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.

## 11. Important Notice and Disclaimer

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