DAN222

Common Cathode Silicon Dual Switching Diode

This Common Cathode Silicon Epitaxial Planar Dual Diode is designed for use in ultra high speed switching applications. This device is housed in the SOT–416/SC–90 package which is designed for low power surface mount applications, where board space is at a premium.

- Fast t_{rr}
- Low C_D
- Available in 8 mm Tape and Reel

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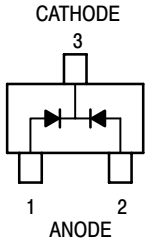
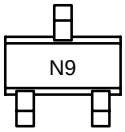


SOT–416
SC–90/SC–75
CASE 463
STYLE 3

MARKING DIAGRAM



MAXIMUM RATINGS (T_A = 25°C)

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	80	Vdc
Peak Reverse Voltage	V_{RM}	80	Vdc
Forward Current	I_F	100	mAdc
Peak Forward Current	I_{FM}	300	mAdc
Peak Forward Surge Current	I_{FSM}(1)	2.0	Adc

THERMAL CHARACTERISTICS

Rating	Symbol	Max	Unit
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	–55 to +150	°C

1. t = 1 μS

ORDERING INFORMATION

Device	Package	Shipping
DAN222	SOT–416	3000/Tape & Reel

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Characteristic	Symbol	Condition	Min	Max	Unit
Reverse Voltage Leakage Current	I_R	V_R = 70 V	—	0.1	μAdc
Forward Voltage	V_F	I_F = 100 mA	—	1.2	Vdc
Reverse Breakdown Voltage	V_R	I_R = 100 μA	80	—	Vdc
Diode Capacitance	C_D	V_R = 6.0 V, f = 1.0 MHz	—	3.5	pF
Reverse Recovery Time	t_{rr}(2)	I_F = 5.0 mA, V_R = 6.0 V, R_L = 100 Ω, I_{rr} = 0.1 I_R	—	4.0	ns

2. t_{rr} Test Circuit on following page.

TYPICAL ELECTRICAL CHARACTERISTICS

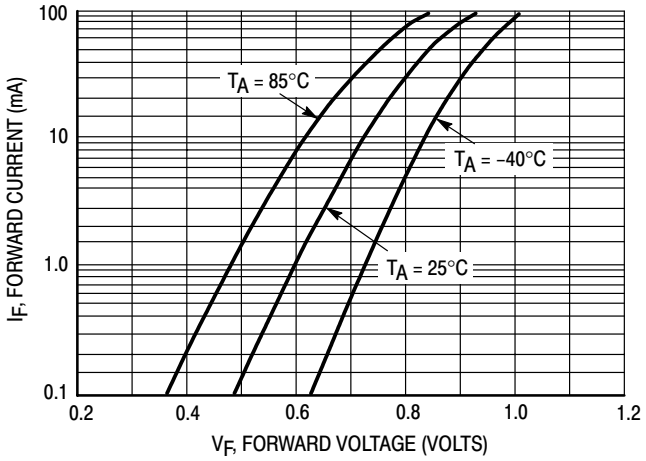


Figure 1. Forward Voltage

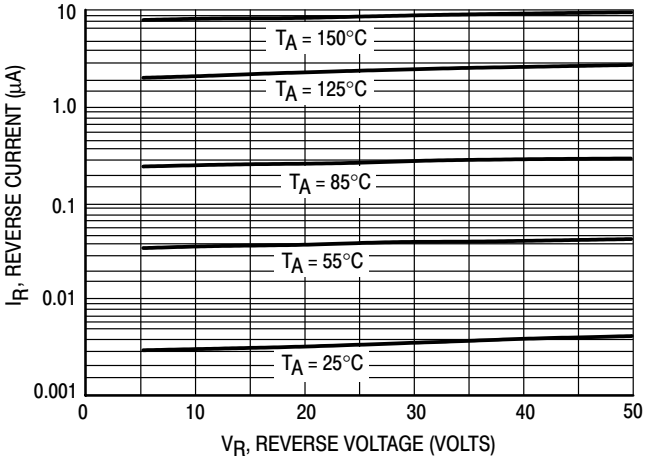


Figure 2. Reverse Current

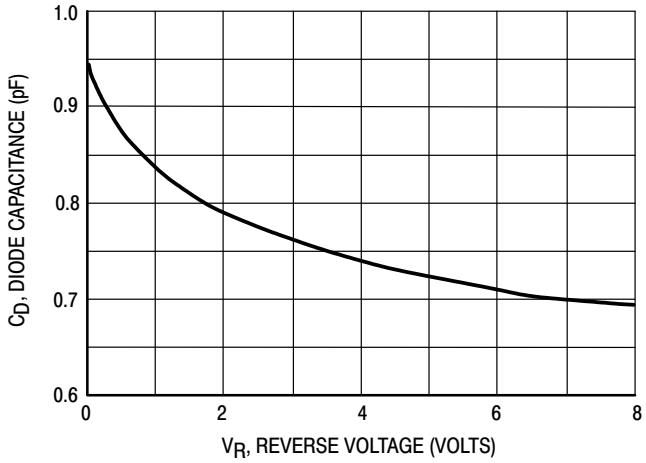
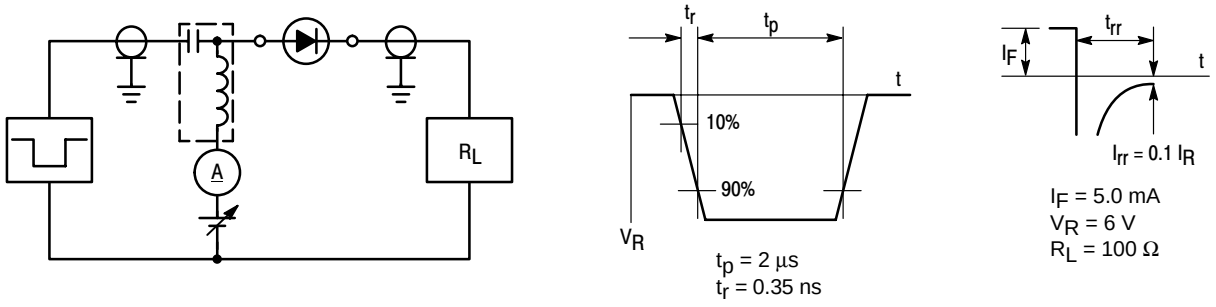


Figure 3. Diode Capacitance

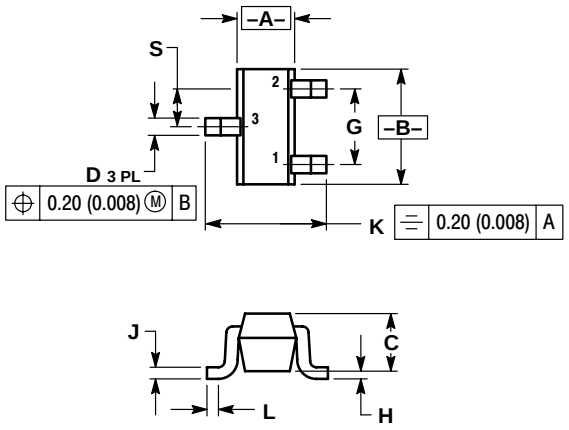


RECOVERY TIME EQUIVALENT TEST CIRCUIT **INPUT PULSE** **OUTPUT PULSE**

Figure 4. Reverse Recovery Time Test Circuit for the DAN222

PACKAGE DIMENSIONS

SOT–416/SC–90
CASE 463–01
ISSUE B



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.

	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
A	0.70	0.80	0.028	0.031
B	1.40	1.80	0.055	0.071
C	0.60	0.90	0.024	0.035
D	0.15	0.30	0.006	0.012
G	1.00 BSC		0.039 BSC	
H	---	0.10	---	0.004
J	0.10	0.25	0.004	0.010
K	1.45	1.75	0.057	0.069
L	0.10	0.20	0.004	0.008
S	0.50 BSC		0.020 BSC	

PUBLICATION ORDERING INFORMATION

Literature Fulfillment:
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