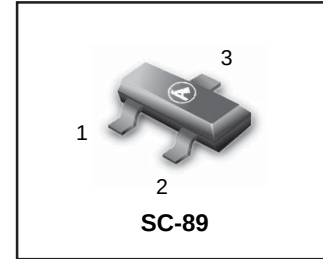


Common Cathode Silicon Dual Switching Diode

This Common Cathode Silicon Epitaxial Planar Dual Diode is designed for use in ultra high speed switching applications. This device is housed in the SC-89 package which is designed for low power surface mount applications, where board space is at a premium.

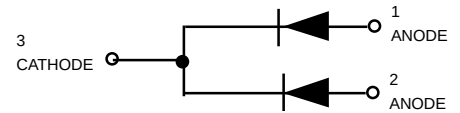
- Fast t_{rr}
- Low C_D
- Available in 8 mm Tape and Reel

LDAN222T1



MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

1. $t = 1 \mu\text{s}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

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

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

Driver Marking

LDAN222T1=N9

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Electrical characteristic curves

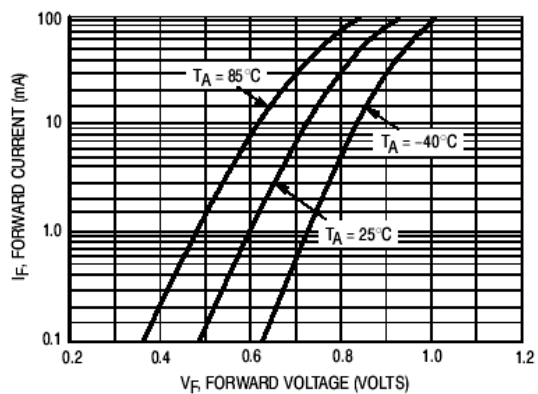


Figure 1. Forward Voltage

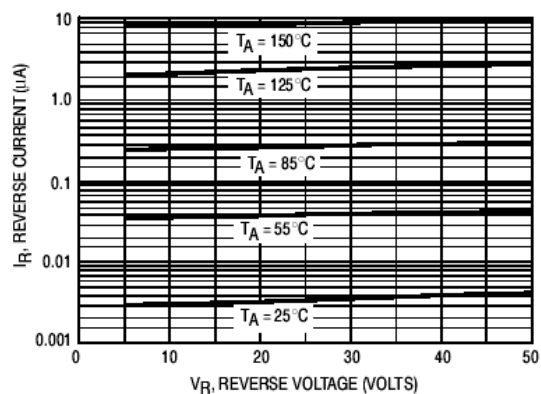


Figure 2. Reverse Current

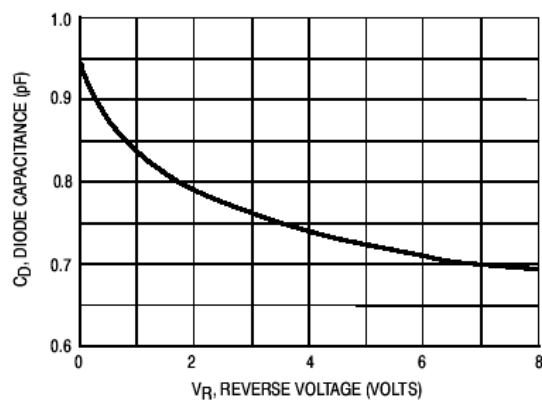
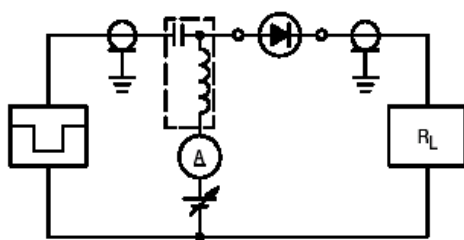
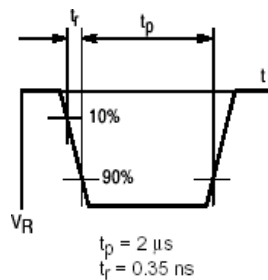


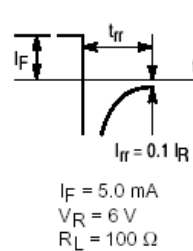
Figure 3. Diode Capacitance



RECOVERY TIME EQUIVALENT TEST CIRCUIT



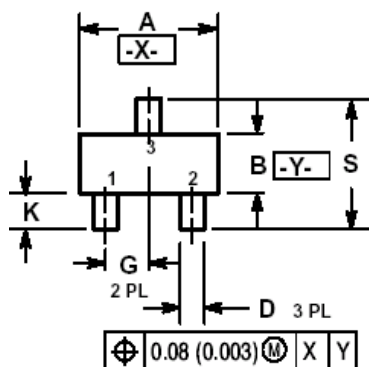
INPUT PULSE



OUTPUT PULSE

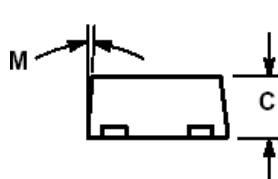
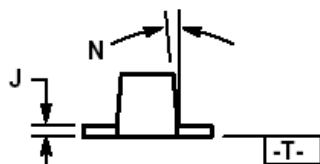
LDAN222T1

SC-89



NOTES:

- 1.DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- 2.CONTROLLING DIMENSION: MILLIMETERS
- 3.MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
- 4.463C-01 OBSOLETE, NEW STANDARD 463C-02.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.50	1.60	1.70	0.059	0.063	0.067
B	0.75	0.85	0.95	0.030	0.034	0.040
C	0.60	0.70	0.80	0.024	0.028	0.031
D	0.23	0.28	0.33	0.009	0.011	0.013
G	0.50 BSC			0.020 BSC		
H	0.53 REF			0.021 REF		
J	0.10	0.15	0.20	0.004	0.006	0.008
K	0.30	0.40	0.50	0.012	0.016	0.020
L	1.10 REF			0.043 REF		
M	---	---	10 °	---	---	10 °
N	---	---	10 °	---	---	10 °
S	1.50	1.60	1.70	0.059	0.063	0.067

