

DAN401 DAN801 DAP601
DAN403 DAN803 DAP801
DAN601 DAP401 DAP803

Diode, array, high-speed switching, leaded

In these single chips, there are multiple diodes as shown in the circuit diagrams. All diodes are in multi-pin molded packages.

Features

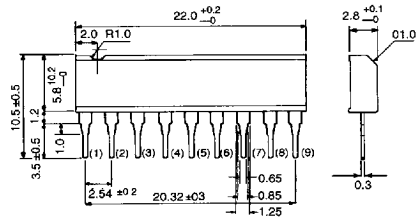
- available in SIP5, SIP7, SIP9, or LF9 pin packages
- suitable for automatic mounting on printed circuit board
- high switching speed ($t_{rr} = 1.5$ ns typically)
- all diodes in the chip have similar characteristics

Applications

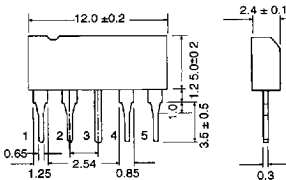
- ultra high-speed switching

Dimensions (Units : mm)

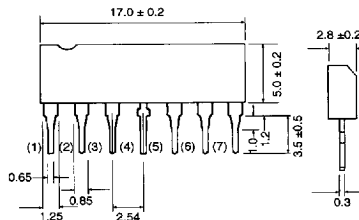
DAN801, DAP801, DAN803, DAP803 (SIP9 pin)



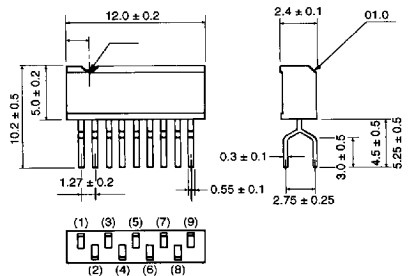
DAN401, DAP401 (SIP5 pin)



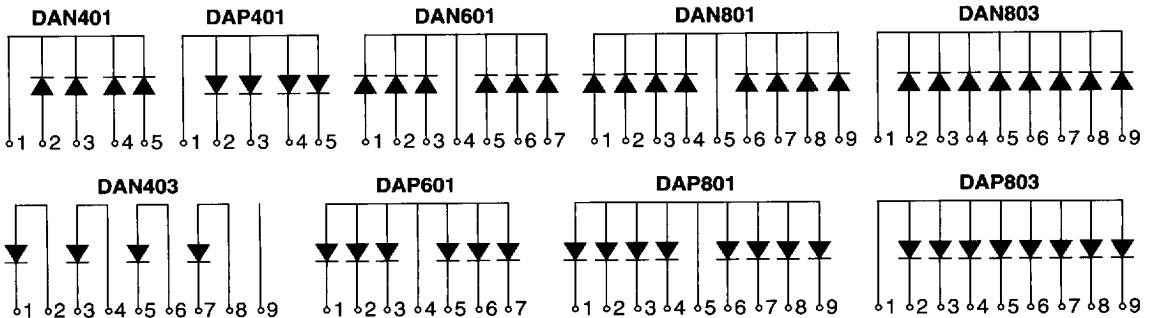
DAN601, DAP601 (SIP7 pin)



DAN403 (LF9 pin)



Equivalent circuits



Diodes

ROHM

239

■ 7828999 0015563 573 ■

DAN(P)401, DAN403, DAN(P)601, DAN(P)801, DAN(P)803 Diode arrays

Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Part no.	Peak reverse voltage V_{RM} (V)	DC reverse voltage V_R (V)	Peak forward current I_{FM} (mA)	Mean rectifying current I_O (mA)	Surge current ($1\mu\text{s}$) I_{surge} (mA)	Power dissipation P_d (mW)	Junction temp. T_j ($^\circ\text{C}$)	Storage temp. T_{stg} ($^\circ\text{C}$)
DAN401	80	80	80	25	250	80	150	-55 ~ +150
DAP401	80	80	80	25	250	80	150	-55 ~ +150
DAN601	80	80	80	25	250	80	150	-55 ~ +150
DAP601	80	80	80	25	250	80	150	-55 ~ +150
DAN801	80	80	80	25	250	80	150	-55 ~ +150
DAP801	80	80	80	25	250	80	150	-55 ~ +150
DAN803	80	80	80	25	250	80	150	-55 ~ +150
DAP803	80	80	80	25	250	80	150	-55 ~ +150
DAN403	80	80	300	100	500	200	150	-55 ~ +150

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$)

Part no.	Forward voltage		Reverse current		Capacitance between terminals			Reverse recovery time			
	V_F (V) max.	I_F (mA)	I_R (μA) max.	V_R (V)	C_t (pF) max.	V_R (V)	f (MHz)	t_{rr} (nS) max.	V_R (V)	I_F (mA)	Ref
DAN401	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAP401	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAN601	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAP601	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAN801	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAP801	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAN803	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAP803	0.9	5	0.1	70	3.5	6	1	4	6	5	Figure 8
DAN403	1.2	100	0.1	70	3.5	6	1	4	6	5	Figure 8

Electrical characteristic curves

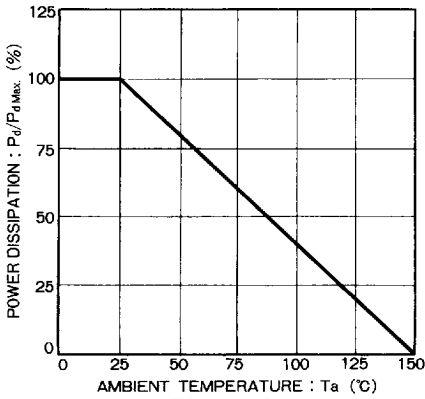


Figure 1

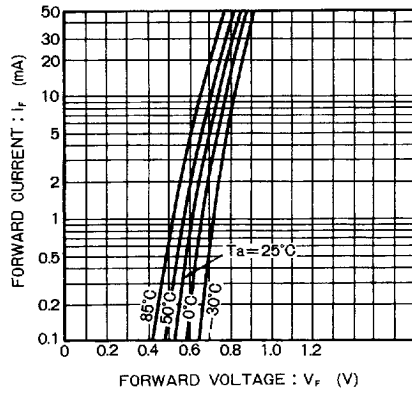


Figure 2

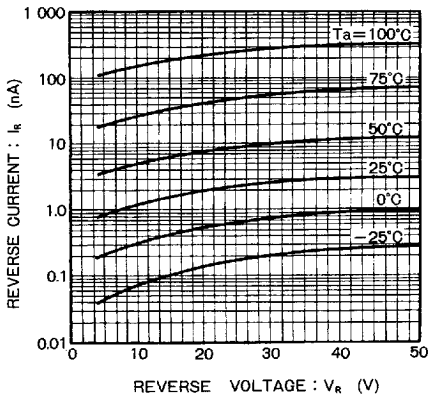


Figure 3

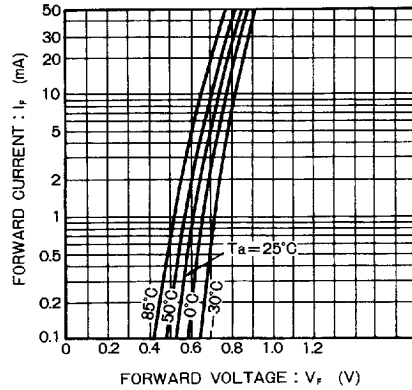


Figure 4

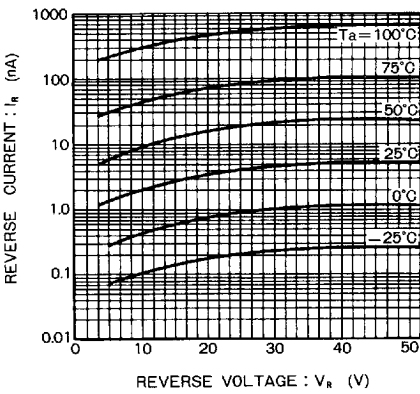


Figure 5

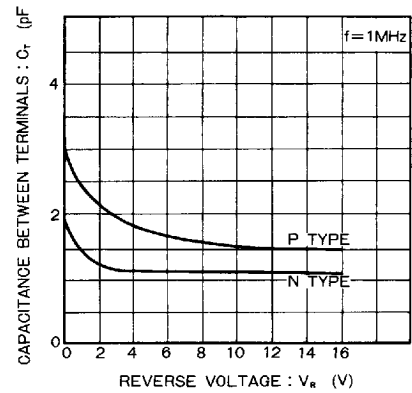


Figure 6

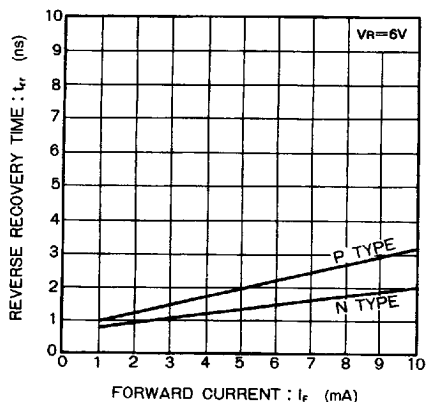
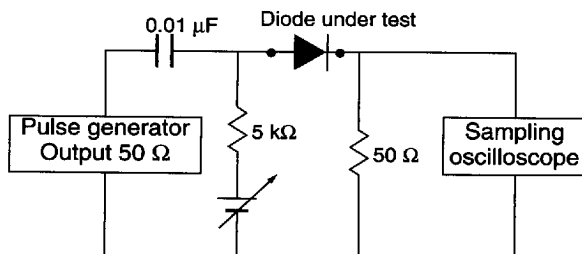


Figure 7

Figure 8 Results of bench reliability tests for DAN401 and DAP401

Test circuit



	Conditions	Test time (hr)	No. of failures	Failure rate (60% confidence rate)
Normal conditions	$T_a = 25 \pm 5^\circ\text{C}$ RH = normal P = 80 mW	4,520,000	0	2.04×10^{-7}
High voltage	$T_a = 25 \pm 5^\circ\text{C}$ RH = normal $V_R = 35\text{ V}$	8,240,000	1	2.45×10^{-7}
High temperature	$T_a = 125 \pm 3^\circ\text{C}$ RH = normal	6,250,000	0	1.47×10^{-7}