

Ultra High-Speed Switching Diode Arrays

DA114/DA121/DA227

DAN202K/DAN202U/DAN212K/DAN222

DAP202K/DAP202U/DAP222

●Applications

Ultra high speed switching

●Features

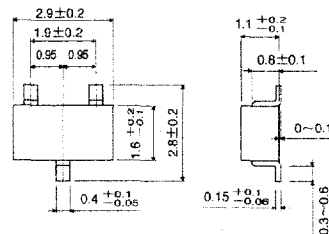
- 1) Compact size
- 2) High reliability
- 3) High speed ($t_{rr}=1.5\text{ns Typ.}$)
- 4) Can be assembled automatically

●Construction

Silicon epitaxial planar

●External dimensions (Units: mm)

DAN202K / DAP202K / DAN212K

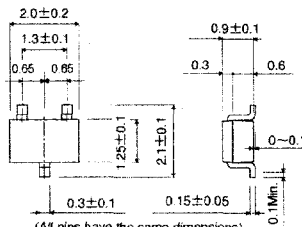


(All leads have the same dimensions)

ROHM : SMD3

EIAJ : SC-59

DA114 / DAN202U / DAP202U

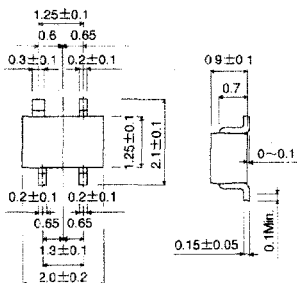


(All pins have the same dimensions)

ROHM : UMD3

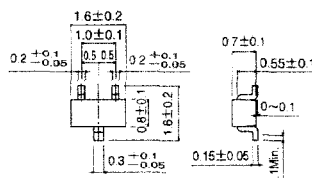
EIAJ : SC-70

DA227



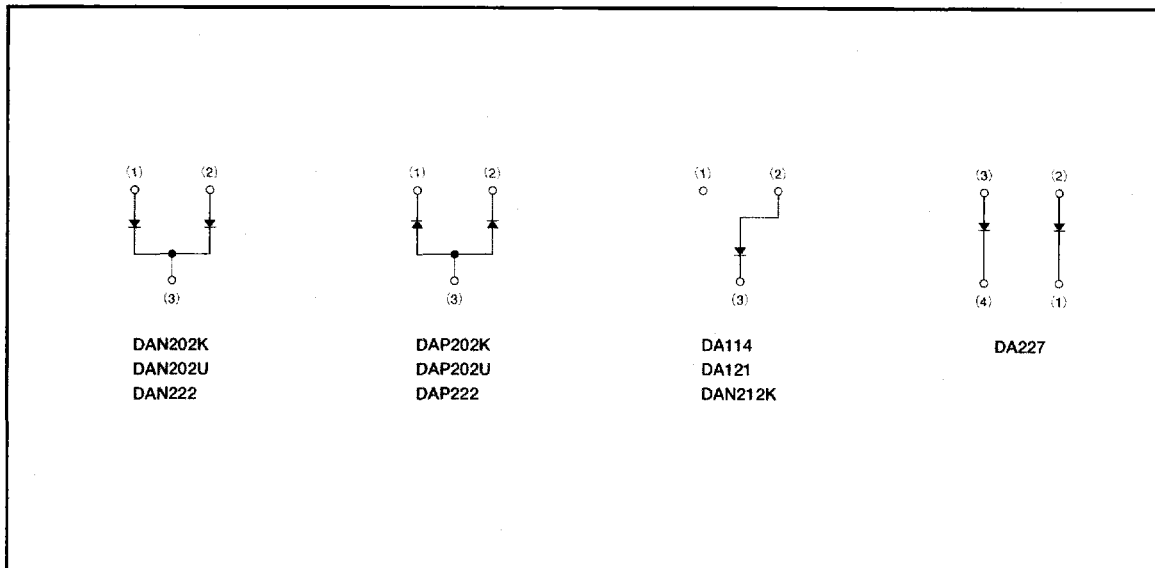
ROHM : UMD4

DA121 / DAN222 / DAP222



ROHM : EMD3

● Internal circuit diagram



Switching diodes

High-speed switching diodes

● Absolute maximum ratings (Ta=25°C)

Type	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 μs) I _{surge} (A)	Power dissipation (TOTAL) P _d (mW)	Junction temperature T _j (°C)	Storage temperature T _{stg} (°C)	TYPE
DA114	80	80	300	100	4	200	150	-55~150	N
DA121	80	80	300	100	4	150	150	-55~150	N
DAN202K	80	80	300	100	4	200	150	-55~150	N
DAP202K	80	80	300	100	4	200	150	-55~150	P
DAN202U	80	80	300	100	4	150	150	-55~150	N
DAP202U	80	80	300	100	4	150	150	-55~150	P
DAN212K	80	80	300	100	4	200	150	-55~150	N
DAN222	80	80	300	100	4	150	150	-55~150	N
DAP222	80	80	300	100	4	150	150	-55~150	P
DA227	80	80	300	100	4	150	150	-55~150	N

●Electrical characteristics (Ta=25°C)

Type	Forward voltage		Reverse current		Capacitance between terminals			Reverse recovery time			
	V _F (V) Max.	Cond.	I _R (μA) Max.	Cond.	C _T (pF) Max.	Cond.		t _{rr} (ns) Max.	Cond.		
		I _F (mA)		V _R (V)		V _R (V)	f (MHz)		V _R (V)	I _F (mA)	Measurement circuit
DA114	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DA121	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAN202K	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAP202K	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAN202U	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAP202U	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAN212K	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAN222	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DAP222	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8
DA227	1.2	100	0.1	70	3.5	6	1	4	6	5	Fig.8

●Electrical characteristic curves (Ta=25°C)

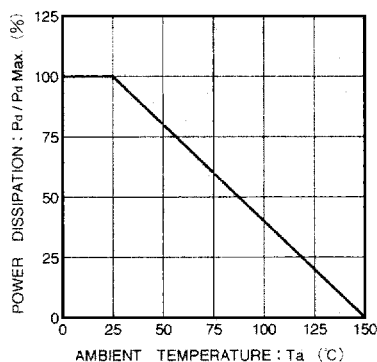
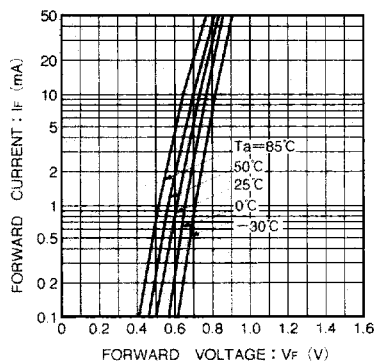
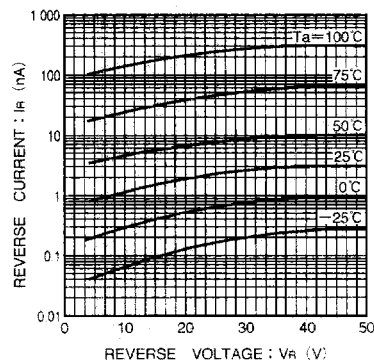


Fig. 1 Power reduction curve

Fig. 2 Forward current vs.
forward voltage
characteristic (P TYPE)Fig. 3 Reverse current vs.
reverse voltage
characteristic (P TYPE)

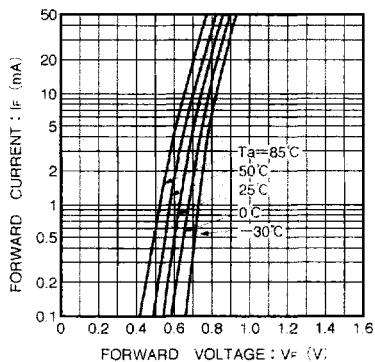
●Electrical characteristic curves ($T_a=25^\circ\text{C}$)

Fig. 4 Forward current vs. forward voltage characteristic (N TYPE)

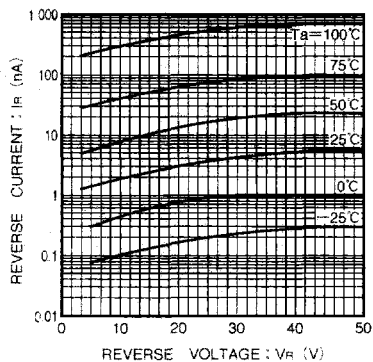


Fig. 5 Reverse current vs. reverse voltage characteristic (N TYPE)

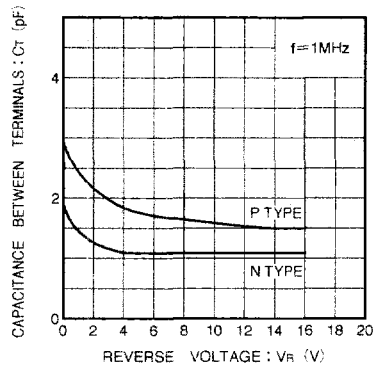


Fig. 6 Capacitance between terminals vs. reverse voltage characteristic

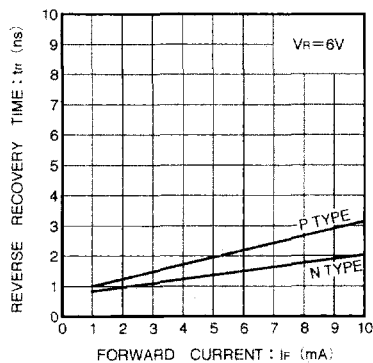
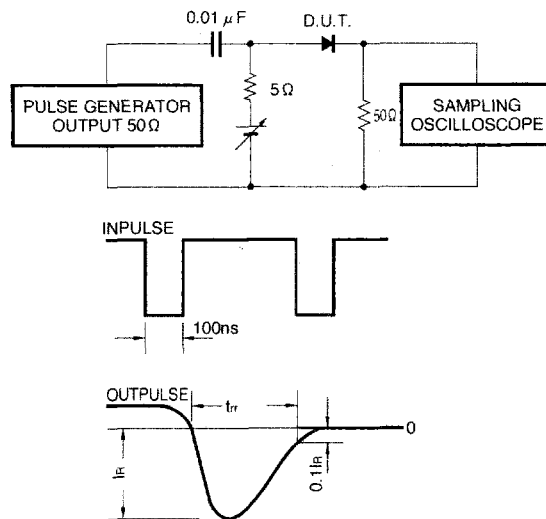


Fig. 7 Reverse recovery time vs. forward current characteristic

Fig. 8 Reverse recovery time (t_r) measurement circuit