

Ultra high-speed switching diode arrays

DA114 / DA121 / DA227

DAN202K / DAN202U / DAN212K / DAN222

DAP202K / DAP202U / DAP222

●Applications

Ultra high speed switching





●Features

- 1) Four types of packaging are available.
- 2) High reliability.
- 3) High speed. (Typical recovery time=1.5ns)
- 4) Suitable for high packing density layout.

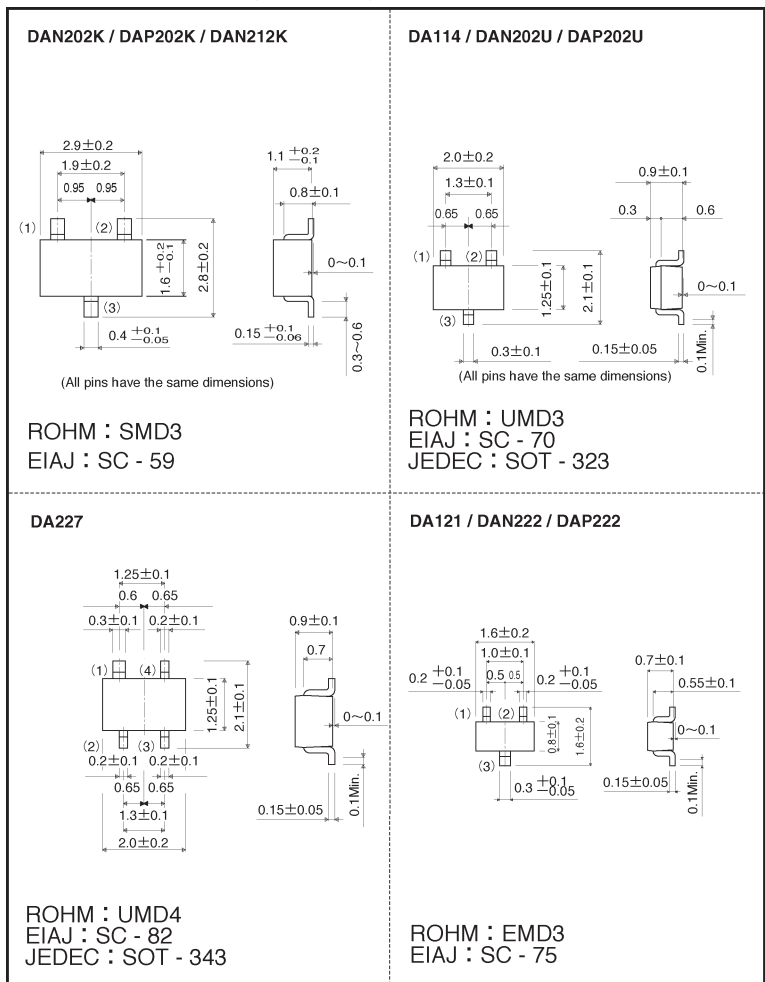
●Construction

Silicon epitaxial planar

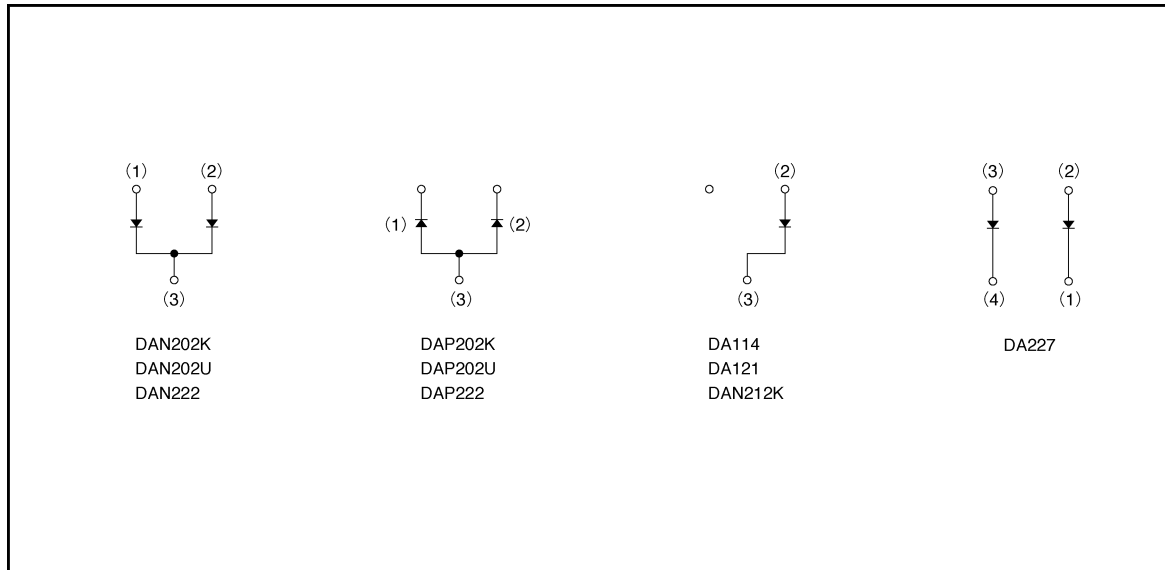
●Marking

DAN222 DAN202U DAN202K	
DAP222 DAP202U DAP202K	
DA121 DA114 DAN212K	
DA227	

●External dimensions (Units: mm)



●Equivalent circuits



●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		
	VF (V) Max.	Cond.	IR (μA) Max.	Cond.	CT (pF) Max.	Cond.		trr (ns) Max.	Cond.	
		IF (mA)		VR (V)		VR (V)	f (MHz)		VR (V)	IF (mA)
DA114	1.2	100	0.1	70	3.5	6	1	4	6	5
DA121	1.2	100	0.1	70	3.5	6	1	4	6	5
DAN202K	1.2	100	0.1	70	3.5	6	1	4	6	5
DAP202K	1.2	100	0.1	70	3.5	6	1	4	6	5
DAN202U	1.2	100	0.1	70	3.5	6	1	4	6	5
DAP202U	1.2	100	0.1	70	3.5	6	1	4	6	5
DAN212K	1.2	100	0.1	70	3.5	6	1	4	6	5
DAN222	1.2	100	0.1	70	3.5	6	1	4	6	5
DAP222	1.2	100	0.1	70	3.5	6	1	4	6	5
DA227	1.2	100	0.1	70	3.5	6	1	4	6	5

●Electrical characteristic curves (Ta = 25°C unless specified otherwise)

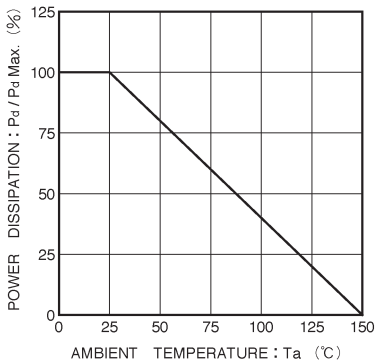


Fig. 1 Derating curve
 (mounting on glass epoxy
 PCBs)

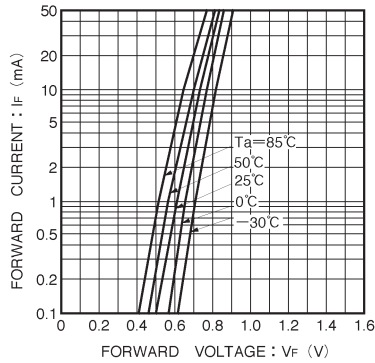


Fig. 2 Forward current vs.
 forward voltage
 (P TYPE)

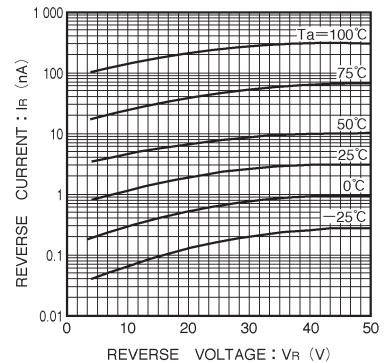


Fig. 3 Reverse current vs.
 reverse voltage
 (P TYPE)

●Electrical characteristic curves (Ta = 25°C unless specified otherwise)

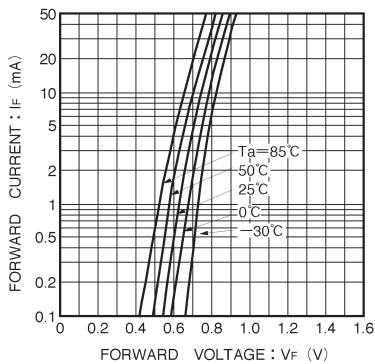


Fig. 4 Forward current vs. forward voltage (N TYPE)

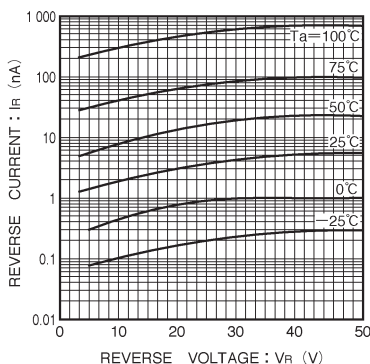


Fig. 5 Reverse current vs. reverse voltage (N TYPE)

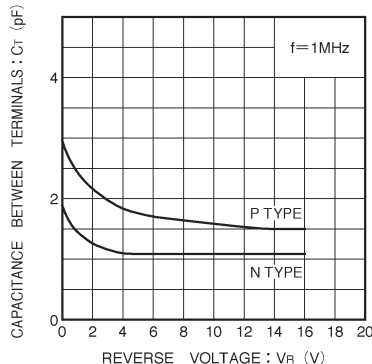


Fig. 6 Capacitance between terminals vs. reverse voltage

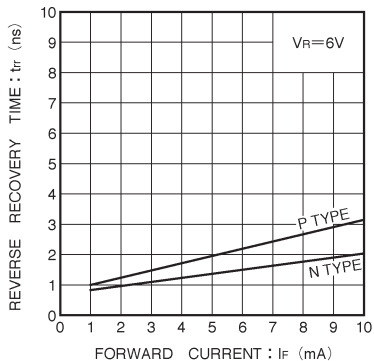


Fig. 7 Reverse recovery time vs. forward current

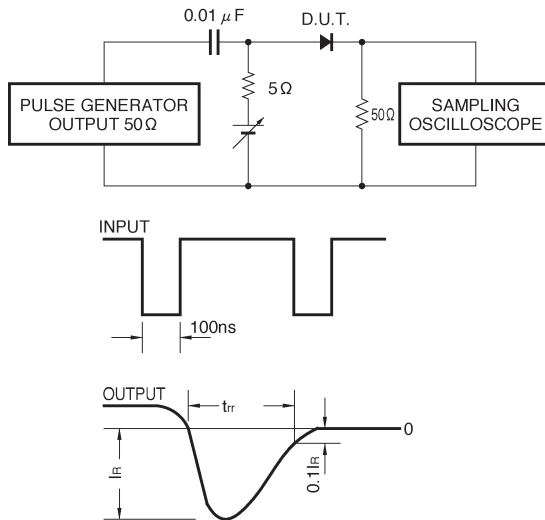


Fig. 8 Reverse recovery time (tr) measurement circuit