

Switching diode

DA221M / DA221 / DA204U / DA204K DA228U / DA228K / UMR12N

●Applications

Bias circuits
Protection circuits

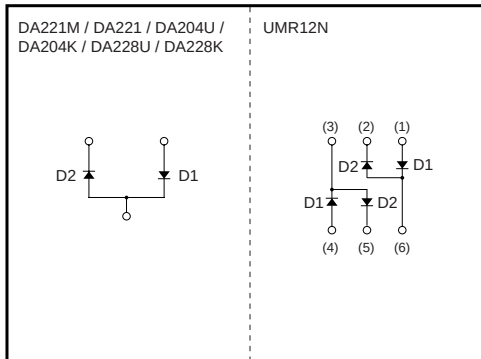
●Features

- 1) Three types of packages are available.
(VMD3, EMD3, UMD3, SMD3)
- 2) Two diode elements are connected in series
($V_F \times 2$) per circuit.

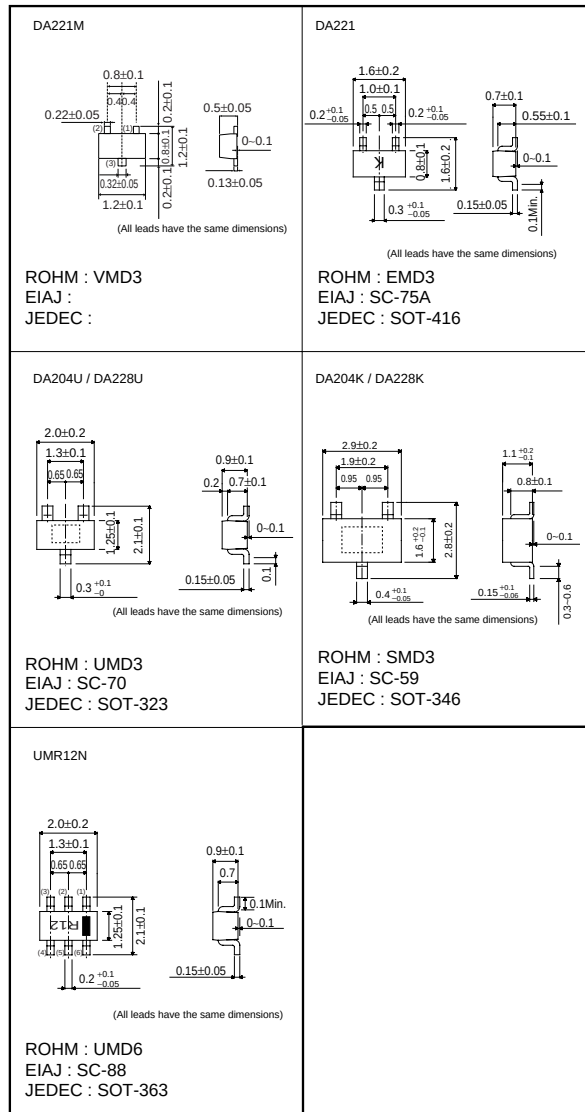
●Construction

Silicon epitaxial planar

●Circuit



●External dimensions (Unit : mm)



DA221M/DA221/DA204U/DA204K/DA228U/DA228K/UMR12N

Diodes

●Marking

VMD3		EMD3		UMD3		UMD6		SMD3	
DA221M		DA221		DA204U		UMR12N		DA204K	
–	–	–	–	DA228U		–	–	DA228K	

●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 (1μs) I _{surge} (mA)	Power dissipation (TOTAL) Pd(mW)	Junction temperature T _j (°C)	Storage temperature T _{stg} (°C)
DA221M	20	20	200	100	300	150	150	–55 to +150
DA221	20	20	200	100	300	150	150	–55 to +150
DA204U	20	20	200	100	300	200	150	–55 to +150
DA228U	80	80	200	100	300	200	150	–55 to +150
DA204K	20	20	200	100	300	200	150	–55 to +150
DA228K	80	80	200	100	300	200	150	–55 to +150
UMR12N	80	80	200	100	300	200	150	–55 to +150

●Electrical characteristics (Ta=25°C)

Type	Forward voltage		Reverse current		Fig.
	V _F (V) Max.	Cond.	I _R (μA) Max.	Cond.	
		I _F (mA)		V _R (V)	
DA221M	1.0	10	0.1	15	1 to 4
DA221	1.0	10	0.1	15	1 to 4
DA204U	1.0	10	0.1	15	1 to 4
DA228U	1.2	100	0.1	80	5 to 9
DA204K	1.0	10	0.1	15	1 to 4
DA228K	1.2	100	0.1	80	5 to 9
UMR12N	1.2	100	0.1	80	5 to 9

DA221M/DA221/DA204U/DA204K/DA228U/DA228K/UMR12N

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●Electrical characteristic curves (Ta=25°C)

(DA221, DA204U, DA204K) ...Fig.1 to 4

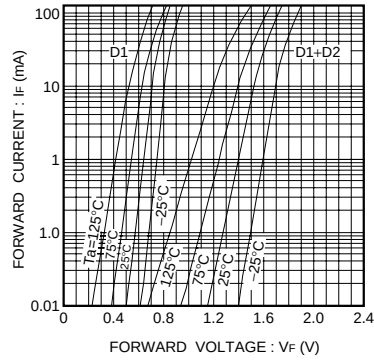


Fig.1 Forward characteristics

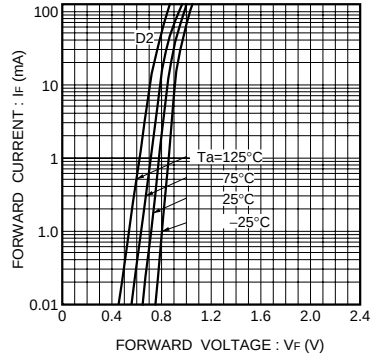


Fig.2 Forward characteristics

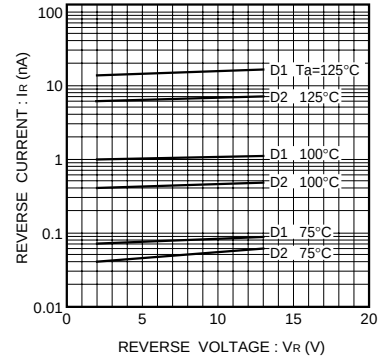


Fig.3 Reverse characteristics

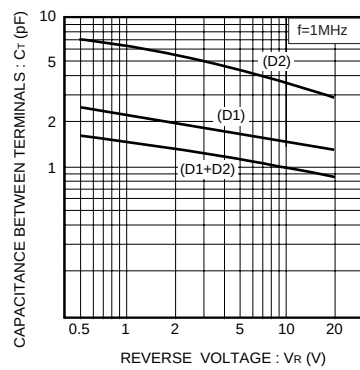


Fig.4 Capacitance between terminals characteristics

DA221M/DA221/DA204U/DA204K/DA228U/DA228K/UMR12N

Diodes

(DA228U, DA228K, UMR12N) ...Fig.5 to 9

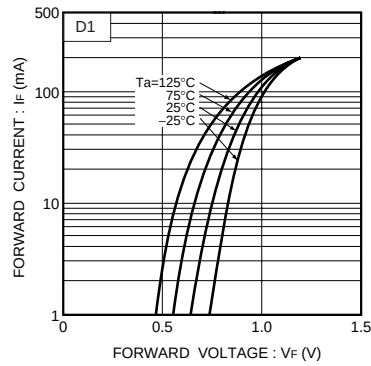


Fig.5 Forward characteristics

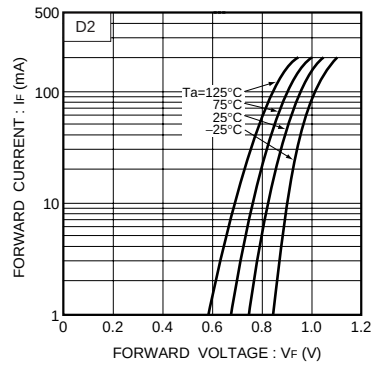


Fig.6 Forward characteristics

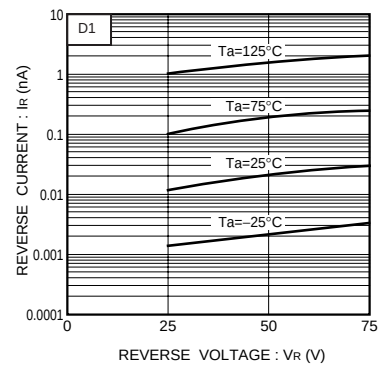


Fig.7 Reverse characteristics

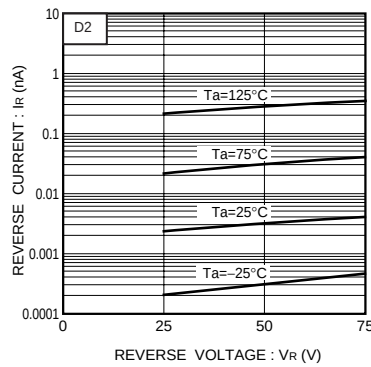


Fig.8 Reverse characteristics

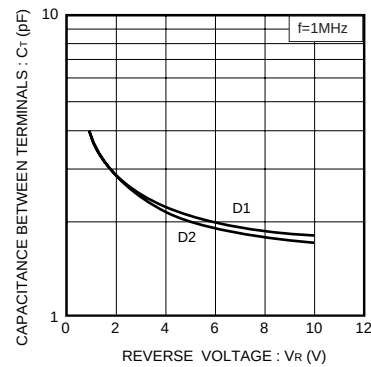


Fig.9 Capacitance between terminals characteristics