File Number **406**

Zero-Voltage-Switched Types

6-40 A, 200-600 V Silicon Triacs For Use With IC Zero-Voltage Switches

For Power-Control and Switching Applications at 50-60 Hz with RCA-CA3059 or CA3079 IC as Trigger Circuits

The triacs listed below are gate-controlled full-wave ac switches intended for load-control applications. They are especially useful in ac circuits for heating controls (proportional or on-off), lamp switching, motor switching, and a wide variety of other power-control applications.

These devices have gate characteristics which assure that an RCA-CA3059 or CA3079 integrated circuit can supply sufficient drive current to trigger them over their full operating-temperature range (-40°C to +85°C).

The RCA-CA3059 and CA3079 are monolithic silicon integrated-circuit zero-voltage switches which can operate directly from the ac line. They are designed to drive the triac gate directly and provide the gating signal at zero-voltage crossings for minimum radio-frequency interference.

These triacs have rms on-state current ratings that range from 6 to 40 amperes, and repetitive off-state voltage ratings from 200 to 600 volts. They are supplied in a variety of packages.

RATINGS AND CHARACTERISTICS

All types, at case temperature (T_C) = 25°C, I+ and III+ triggering modes, ΔI_{GT} = 45 mA max., V_{GT} = 1.5 V max.

Type No.	Rep. Peak Off-State Voltage V_{DROM} (V)	RMS On-State Current I_T(RMS) at Case Temp. (A)	(°C)	Typical DC Holding Current at 25°C, I_{HO} (mA)	Package	Additional Data Shown in Bulletin File No.*
T2506B	200	6	105	15	TO-220AB	615
T2506D	400	6	105	15		615
T2506M	600	6	105	15		615
T2506N	800	6	105	15		615
T2706B	200	6	100	15	TO-213AA	351
T2706D	400	6	100	15		351
T2706M	600	6	100	15		351
T2706N	800	6	100	15		351
T2806B	200	8	105	15	TO-220AB	1314
T2806C	300	8	105	15		1314
T2806D	400	8	105	15		1314
T2806M	600	8	105	15		1314
T2806N	800	8	105	15		1314

Zero-Voltage-Switched Types

RATINGS AND CHARACTERISTICS, Cont'd

All types, at case temperature (T_C) = 25°C, I+ and III+ triggering modes, Δ I_{GT} = 45 mA max., V_{GT} = 1.5 V max.

Type No.	Rep. Peak Off-State Voltage V_{DROM} (V)	RMS On-State Current I_T(RMS) at Case Temp. (A)	(°C)	Typical DC Holding Current at 25°C, I_{HO} (mA)	Package	Additional Data Shown in Bulletin File No.*
T4706B	200	15	95	15	TO-213AA	300
T4706D	400	15	95	15		300
T4706M	600	15	95	15		300
T4706N	800	15	95	15		300
T6406B	200	40	95	45	Press-fit	593
T6406D	400	40	95	45		593
T6406M	600	40	95	45		593
T6407B	200	30	90	25	Press-fit	459
T6407D	400	30	90	25		459
T6407M	600	30	90	25		459
T6407N	800	30	90	25		459
T6416B	200	40	90	25	Stud	593
T6416D	400	40	90	25		593
T6416M	600	40	90	25		593
T6417B	200	30	85	25	Stud	459
T6417D	400	30	85	25		459
T6417M	600	30	85	25		459
T6417N	800	30	85	25		459
T6426B	200	40	85	25	Isolated Stud	593
T6426D	400	40	85	25		593
T6426M	600	40	85	25		593
T6427B	200	30	80	25	Isolated Stud	459
T6427D	400	30	80	25		459
T6427M	600	30	80	25		459

ΔA triac driven directly from the output terminal of the CA3059 or CA3079 should be characterized for operation in the I+ or III+ triggering mode, i.e., with positive gate current (current flows into the gate for both polarities of the applied ac voltage).

*Except for gate characteristics, data in these bulletins also apply to the types listed in this chart.

Technical information on RCA-CA3059 and CA3079 is contained in bulletin File No. 490.

For detailed application information, see Application Note ICAN-6182, "Features and Application of RCA Integrated Circuit Zero-Voltage Switches."