

## ■ FEATURES

- CMOS technology
- Continuous brightness control
- Serial data input
- No LOAD signal required
- Optional external data enable and reset
- Wide power supply operation (3.5V to 12V)
- 34 or 35 outputs, 20mA sink capability
- Alphanumeric capability

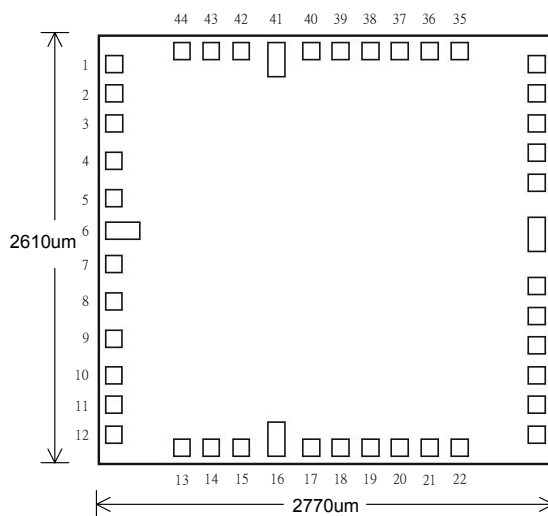
## ■ APPLICATIONS

- Products with alphanumeric LED displays such as digital clock, counter, radio, multimeter, etc.
- Industrial control indicator or instrumentation readout
- Relay driver

## ■ GENERAL DESCRIPTIONS

The PS045M is designed to drive either 4 or 5-digit, common anode alphanumeric LED displays with the added benefit of requiring minimal interface with the display or data source. Data is transferred serially via 2 signals: clock and serial data. Data transfer without the added inconvenience of external LOAD and RESET signal is accomplished by using a format of a leading "1" followed by the allowed 35 data bits. Display brightness is determined by control of the output current for LED displays. Typically, the output current is 36 times greater than current flowing into the B.C. terminal.

## ■ DIE SIZE AND PAD ASSIGNMENT



1 :OUT3	10:OUT35	19:OUT27	28:OUT18	37:OUT10
2 :OUT2	11:OUT34	20:OUT26	29:VSS	38:OUT9
3 :OUT1	12:OUT33	21:OUT25	30:OUT17	39:OUT8
4 :RESET	13:OUT32	22:OUT24	31:OUT16	40:OUT7
5 :B.C.	14:OUT31	23:OUT23	32:OUT15	41:VSS
6 :VDD	15:OUT30	24:OUT22	33:OUT14	42:OUT6
7 :CLK	16:VSS	25:OUT21	34:OUT13	43:OUT5
8 :DATA IN	17:OUT29	26:OUT20	35:OUT12	44:OUT4
9 :ENB	18:OUT28	27:OUT19	36:OUT11	

PAD NAME	DESCRIPTION
VDD	Supply voltage
VSS	System ground
RESET	To reset all the internal registers
B.C.	Brightness-control current input
CLK	Clock input to transfer serial data
DATA IN	Serial data input
ENB	To enable or disable serial data input
OUTn	Constant sinking current output