EG0501

PWM Current Control Stepping Motor Driver

Overview

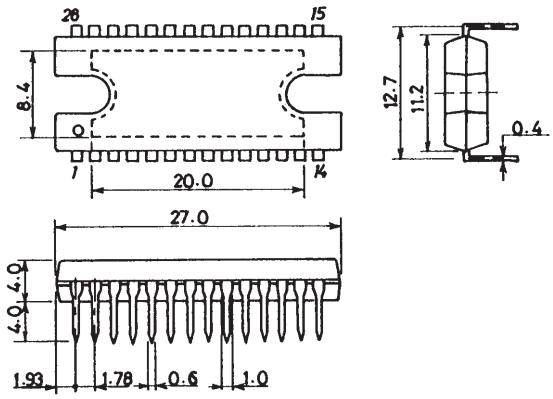
The EG0501 is a PWM current control type stepping motor driver that uses a bipolar drive scheme. It is particularly suitable for driving carriage and paper feed stepping motors in printers and similar products.

Features

- PWM current control (fixed off time scheme)
- Digital load current selection function
- Sustained output voltage: 45 V
- Built-in thermal shutdown circuit

Package Dimensions

unit: mm



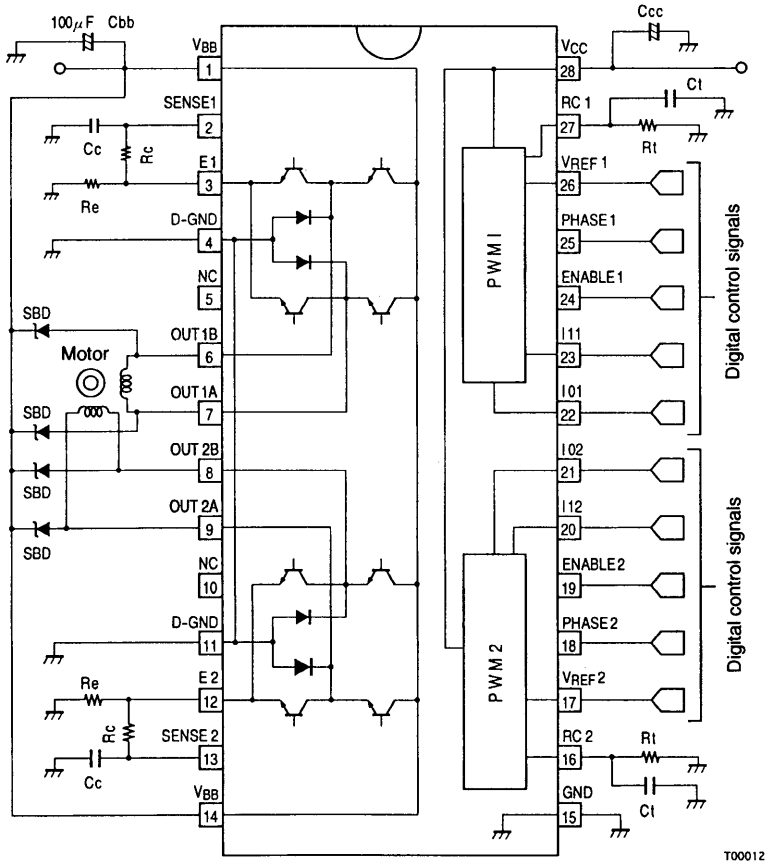
Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Motor supply voltage	V_{BB}		45	V
Peak output current	I_{OPEAK}	t_W = 20 µS	1.75	A
Continuous output current	I_{OMAX}		1.5	A
Logic block supply voltage	V_{CC}		7.0	V
Logic input voltage range	V_{IN}		–0.3 to V_{CC}	V
Emitter output voltage	V_E		1.0	V
Allowable power dissipation	Pd max1	Independent IC	3.0	W
	Pd max2	With an arbitrarily large heat sink	20.0	W
Operating temperature	Topr		–20 to +85	°C
Storage temperature	Tstg		–55 to +150	°C

Recommended Operating Ranges at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Motor supply voltage	V_{BB}		10 to 44.5	V
Logic block supply voltage	V_{CC}		4.75 to 5.25	V
Reference voltage	V_{REF}		1.5 to 7.5	V



Off time setting values

$t_{off} \fallingdotseq CtRt$

Re = 0.82 Ω (1w)
VREF = 5V
Rt = 56kΩ
Ct = 470pF
Rc = 1kΩ
Cc = 330pF
Cbb = 100μF