

# MTA002

### FEATURES

- Nine output drivers per package (Quasi PNP darlington output)
- TTL/CMOS compatible inputs (Low active)
- Enable input

### APPLICATION

- Head needle drive for printer
- Display drive

### RATINGS

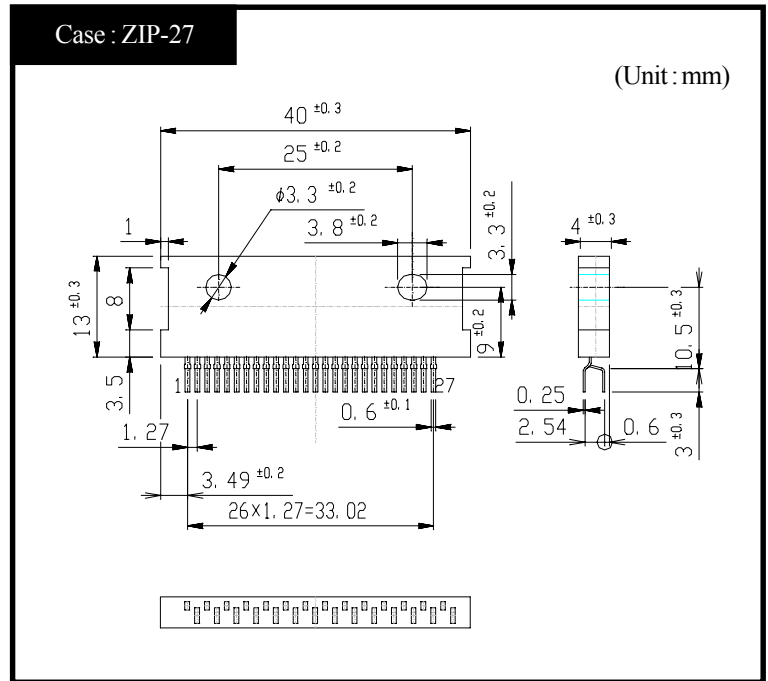
#### ● Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Ratings	Unit
Output Voltage	$V_{CE(SUS)}$	60	V
Output Current	$I_O$	2	A
Reverse Voltage(flyback diode)	$V_R$	60	V
Forward Current(each flyback diode)	$I_F$	2	A
Forward Current(each common terminal)	$I_F$	10	A
Output Current(each GND terminal)	$I_{GND}$	10	A
Logic Supply Voltage	$V_{CC}$	0~7	V
Logic Input Voltage	$V_{IN}$	0~ $V_{CC}$	V
Enable Input Voltage	$V_{ENA}$	0~ $V_{CC}$	V
Total Power Dissipation	$P_T$	5	W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-40~150	°C

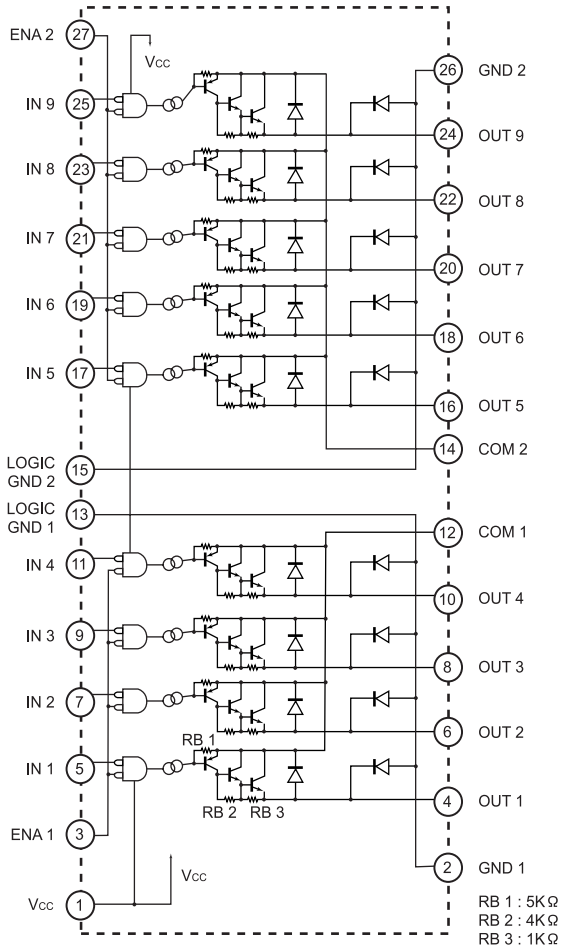
#### ● Electrical Characteristics (Ta=25°C)

Item	Symbol	Test Conditions	min.	typ.	max.	Unit
Output Saturation Voltage	$V_{CE(sat)}$	$V_{CC}=5V, I_C=1.5A, V_{IN}=V_{ENA}=0V$		2.0	2.5	V
Output Leakage Current	$I_{CE}$	$V_{CE}=60V$			10	$\mu A$
Logic Supply Current(Standby)	$I_{CC(OFF)}$	$V_{CC}=5V, V_{IN}="H"$		15	20	mA
Logic Supply Current(All Circuit ON)	$I_{CC(ON)}$	$V_{CC}=5V, V_{IN}="L"$		15	20	mA
Input High Voltage	$V_{INH}$	$V_{CC}=5V$	2.7			V
Input Low Voltage	$V_{INL}$	$V_{CC}=5V$			1.5	V
Logic High Input Current	$I_{INH}$	$V_{CC}=5V, V_{IN}=2.7V$			10	$\mu A$
Logic Low Input Current	$I_{INL}$	$V_{CC}=5V, V_{IN}=0V$		-10	-50	$\mu A$
Enable "H" Input Voltage	$V_{ENAH}$	$V_{CC}=5V$	2.7			V
Enable "L" Input Voltage	$V_{ENAL}$	$V_{CC}=5V$			1.5	V
Enable "H" Input Current	$I_{ENAH}$	$V_{CC}=5V, V_{ENA}=2.7V$			10	$\mu A$
Enable "L" Input Current	$I_{ENAL}$	$V_{CC}=5V, V_{ENA}=0V$		-25	-100	$\mu A$
Thermal Resistance	$\theta_{jc}$				3.57	°C/W
	$\theta_{ja}$				25	°C/W
Reverse Current(each flyback diode)	$I_R$	$V_R=60V$			10	$\mu A$
Reverse Voltage(flyback diode)	$V_F$	$I_F=1.5A$		1.4	1.7	V
Dielectric Strength	$V_{ISO}$	Substrate to Terminals	500			V

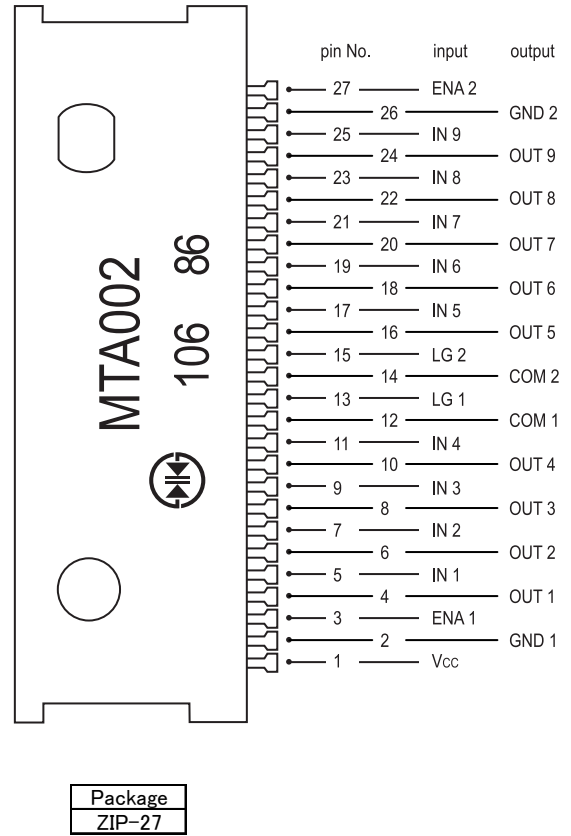
### OUTLINE DIMENSIONS



## ● Equivalent Circuit



## ● Pin Assignment



## ● True Table

Vcc	V <sub>IN</sub>	V <sub>ENA</sub>	Output Transistor
L	X	X	OFF
H	H	H	OFF
H	H	L	OFF
H	L	H	OFF
H	L	L	ON

## ● Recommended Operating Conditions (T<sub>a</sub>=25°C)

Item	Symbol	min.	typ.	max.	Unit
Supply Voltage	V <sub>CC</sub>	4.5	5.0	5.5	V
Output Current	I <sub>C</sub> I <sub>F</sub>			1.5	A
Output Voltage	V <sub>CE</sub> V <sub>R</sub>			50	V
Junction Temperature	T <sub>j</sub>	-25		120	°C

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