KKA2586

1024 x 8-Bit n-MOS EEPROM with I^{2}C-Bus Interface

The KKA2586 is a 8-Kbit (1024 x 8-bit) n-MOS floating gate electrically erasable programmable read only memory (EEPROM). IC works in systems with serial I^{2}C-bus. Up to two KKA2586 devices may be connected to the I^{2}C-bus. The programming of the array is implemented by electron's tunneling. The programming voltage is generated on-chip, using a voltage multiplier. Device is functionally identical to the SDA2586, Siemens. IC are made in 8-pin DIP and 8-pin SOP.
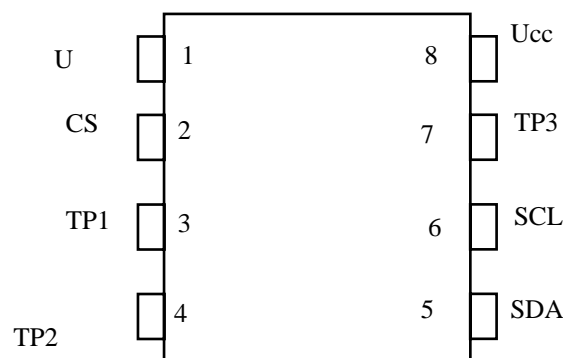
FEATURES

- ♦ Non-volatile storage of information during 10 years
- ♦ Single supply (Ucc=4,75 B - 5,25 B)
- ♦ On-chip voltage multiplier
- ♦ On-chip generator of bulk biasing
- ♦ Serial input/output I^{2}C-bus
- ♦ 10 000 ERASE/WRITE cycles per byte;
- ♦ Internal reprogramming (no external components)
- ♦ Duration of the ERASE/WRITE cycle is 15 ms
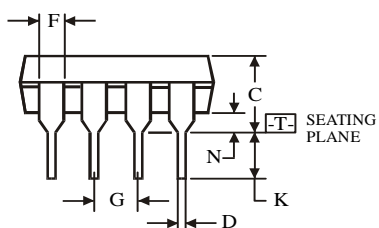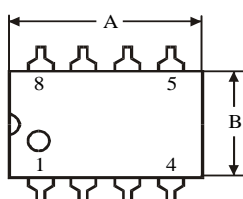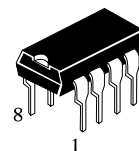- ♦ Temperature range: $0 \div +70^0$C

ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Symbol	Min.	Max
Supply current, mA	U_{CC}=5.25 B	I_{CC0}	-	20,0
Output low voltage (SDA), V	I_{OL}=3 mA U_{CC}=4.75B	U_{OL}	-	0,4
High leakage current: -on output (SDA), μA -on inputs SCL, SDA, μA -on inputs CS, TP1, TP2,μA	U_{OH}=5,25 B U_{IH}=5,25 B U_{IH}=5,25 B	I_{LOH} I_{LIH} I_{LIH}	- - -	10,0 10,0 100,0
Input capacitance, pF	U_I= 0 B	C_I	-	10,0
Clock input frequency, kHz		f_{SCL}	0	100
Reprogramming cycle time, ms	Erase and Write	t_{PROG}	10,0	20,0
Erase of die cycle time, ms	U_{TP2}= 5,0 B	t_{ER}	-	20,0
The number of E/W cycles on 1 byte			10 000	-
Input high voltage: -inputs SDA, SCL, V -inputs CS, TP1, TP2, V		U_{IH}	3,0 4,5	U_{CC} U_{CC}
Input low voltage: -inputs SDA, SCL, V -inputs CS, TP1, TP2, V		U_{IL}	- -	1,5 0,2 KK

PIN DESCRIPTION

SYMBOL	PIN	DESCRIPTION
Uss	1	GND
CS	2	Chip selection
TP1	3	Testing pin
TP2	4	Testing pin (0V - normal mode, 5V - chip erasing)
SDA	5	Informational line, input/output
SCL	6	Clock input
TP3	7	Testing pin, not connected
Ucc	8	Supply Voltage

PIN ASSIGNMENT

N SUFFIX PLASTIC DIP
(MS – 001BA)

	Dimension, mm	
Symbol	**MIN**	**MAX**
A	8.51	10.16
B	6.1	7.11
C		5.33
D	0.36	0.56
F	1.14	1.78
G	2.54	
H	7.62	
J	0°	10°
K	2.92	3.81
L	7.62	8.26
M	0.2	0.36
N	0.38	

$\oplus$ | 0.25 (0.010) Ⓜ | T

NOTES:

1. Dimensions "A", "B" do not include mold flash or protrusions.

   Maximum mold flash or protrusions 0.25 mm (0.010) per side.