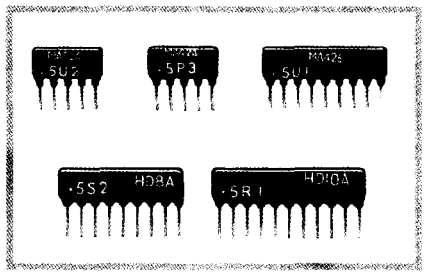
Diode Arrays



High-speed switching diode arrays and high voltage-withstand diode arrays are of NICHICON's standard series. They are combined to be conveniently used for both binary and decimal systems. High-speed series is ideal for computer peripherals, control boards and general electronic appliances. Besides, high voltage-withstand series is ideal for plasma displays. relay surge-preventive circuits.
Both of these series are in stock for prompt delivery. Any special requirements with customer's particular circuits will be also welcome. Please consult us for the details.
(Samples for the items listed below are not always available on stock. Please contact our sales office for details together with your specific requirements.)

■ High-speed switching diode array series

● Absolute maximum ratings ※

Items	Symbol	Ratings
Peak reverse voltage	V_{RM}	40V
DC reverse voltage	V_R	40V
Surge current (1μs)	I_{FSM}	4.0A
Peak forward current	I_{FM}	300mA
Average rectified current	I_O	100mA
Storage temperature	T_{stg}	−25～+85℃

※ 100mA for simultaneous energizing. ※ Maximum Current value applicable to each diode.

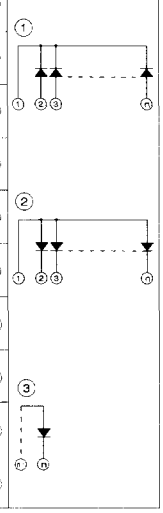
● Electrical characteristics

Ta :+25℃

Items	Symbol	Conditions	Rating Min.	Rating Typ.	Rating Max.	Unit
Reverse current	I_R	V_R=40V	—	—	0.5	μA
Forward voltage	V_{F1}	I_F=10mA	—	0.7	1.0	V
Forward voltage	V_{F2}	I_F=50mA	—	0.79	1.0	V
Forward voltage	V_{F3}	I_F=100mA	—	0.85	1.2	V
Reverse recovery time	t_{rr}	I_F=10mA, V_R=6V	—	—	4.0	ns

● Series List

Code	Type	Number of diodes	Common electrode	Dimensions (m/m Max.) W	H	T	No.of Pins n	Circuit diagram
ZHMA0423	MA423	4	Cathode	14	9	3.5	5	①
ZHMA0424	MA424		Anode					②
ZHMA0425	MA425	8	Cathode	24	9	3.5	9	①
ZHMA0426	MA426		Anode					②
ZHMA0427	MA427	10	Cathode	29	9	3.5	11	①
ZHMA0428	MA428		Anode					②
ZHMA0429	MA429	5	Isolated	27	9	3.5	10	③
ZHMA0430	MA430	4	Isolated	21.5	9	3.5	8	③
ZHMA0431	MA431	6	Cathode	19	9	3.5	7	①
ZHMA0432	MA432		Anode					②



■ High voltage-withstand series

● Absolute maximum ratings ※

Items	Symbol	Ratings
Peak reverse voltage	V_{RM}	220V
Reverse DC voltage	V_R	200V
Surge current (1sec.)	I_S	1A
Peak forward current	I_{FM}	600mA
Average rectified current	I_O	200mA
Storage temperature	T_{stg}	−25～+85℃

※ Maximum Current value applicable to each diode.

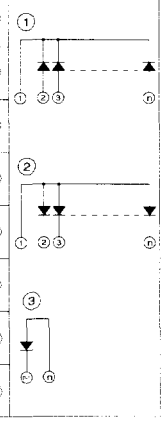
● Electrical characteristics

Ta :+25℃

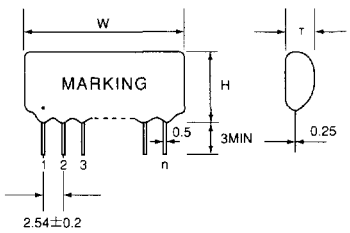
Items	Symbol	Conditions	Rating Min.	Rating Typ.	Rating Max.	Unit
Reverse current	I_R	V_R=110V	—	—	1.0	μA
Forward voltage	V_F	I_F=50mA	—	—	1.3	V
Reverse voltage	V_R	I_R=100μA	220	—	—	V
Time required for recovery from reverse voltage or current	t_{rr}	I_F=I_R=30mA, R_L=100Ω	—	—	100	ns

● Series List

Code	Type	Number of diodes	Common electrode	Dimensions (m/m Max.) W	H	T	No.of Pins n	Circuit diagram
ZHLA0650	HD-4K	4	Cathode	14	9	3	5	①
ZHLA0651	HD-4A		Anode					②
ZHLA0652	HD-8K	8	Cathode	24	9	3	9	①
ZHLA0653	HD-8A		Anode					②
ZHLA0654	HD-10K	10	Cathode	29	9	3	11	①
ZHLA0655	HD-10A		Anode					②
ZHLA0656	HD-4S	4	Isolated	21.5	9	3	8	③
ZHLA0657	HD-5S	5	Isolated	27	9	3	10	③



● Drawing



Diode Mini-Arrays

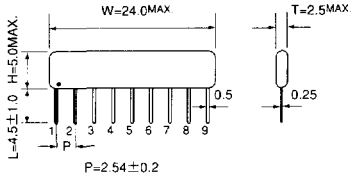
- Height……5mm Max.
  The mounting height of electronic device can be made substantially low-profile and compact.
- Thickness……2.5mm Max.
  Diode arrays can be placed in a row with 2.54mm pitch, and high density mounting is available at a rate of one diode per 0.1 sq. inch.

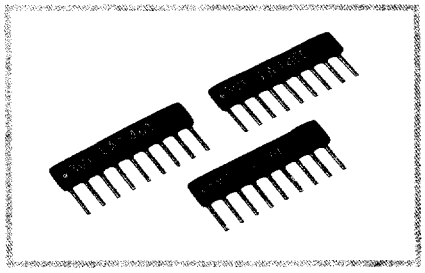
● Electrical characteristics

Ta:+25℃

Items	Symbol	Conditions	Rating Min.	Rating Typ.	Rating Max.	Unit
Reverse current	I_R	V_R=35V	—	—	0.5	μA
Forward voltage	V_{F1}	I_F=10mA	—	0.75	1.0	V
Forward voltage	V_{F2}	I_F=50mA	—	0.90	1.1	V
Forward voltage	V_{F3}	I_F=100mA	—	0.95	1.2	V
Reverse recovery time	t_{rr}	I_F=10mA, V_R=6V	—	—	4.0	ns

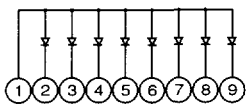
● Drawing



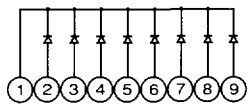


● Circuit diagram

LA1460 (Code ZHLA 1460)



LA1461 (Code ZHLA 1461)



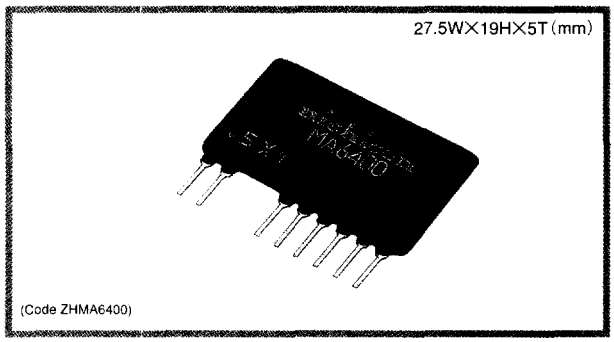
Any particular specifications are also available upon request.

Hybrid IC for Control Circuit of Power Supply

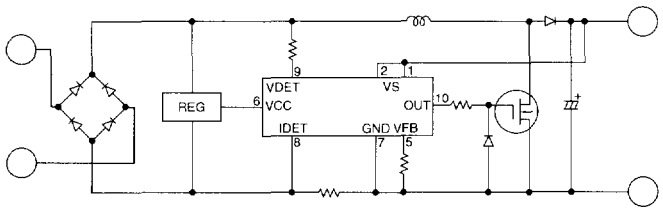
Higher Harmonics (MA6400B)

■ Feature

This control circuit suited for power supplies and inverters for the higher harmonics application.
Very high power factor improvement can be obtained by boosting chopper circuitry.



■ Applied circuit



Control Circuit of Power Supply (MA2789)

■ Feature

This is control circuit of buck converter.
This acts as an output of +5V power supply, when coil, transistor etc. are connected.