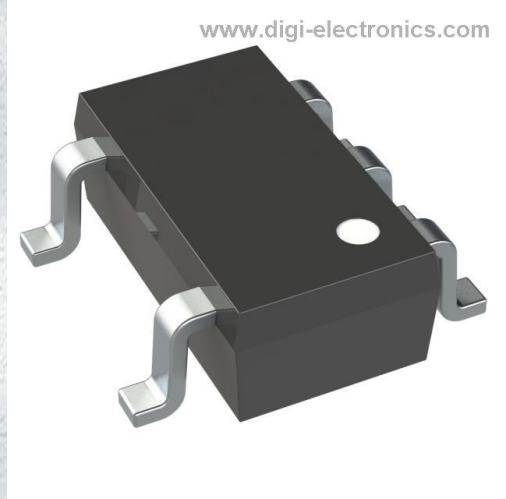
MC74VHC1GT126DBVT1G Datasheet



DiGi Electronics Part Number	MC74VHC1GT126DBVT1G-DG
Manufacturer	onsemi
Manufacturer Product Number	MC74VHC1GT126DBVT1G
Description	IC BUFFER NON-INVERT 5.5V SC74A
Detailed Description	Buffer, Non-Inverting 1 Element 1 Bit per Element 3 -State Output SC-74A

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
MC74VHC1GT126DBVT1G	onsemi
Series:	Product Status:
74VHC	Active
Logic Type:	Number of Elements:
Buffer, Non-Inverting	1
Number of Bits per Element:	Input Type:
1	-
Output Type:	Current - Output High, Low:
3-State	8mA, 8mA
Voltage - Supply:	Operating Temperature:
3V ~ 5.5V	-55°C ~ 125°C (TA)
Mounting Type:	Package / Case:
Surface Mount	SC-74A, SOT-753
Supplier Device Package:	Base Product Number:
SC-74A	74VHC1GT126

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8542.39.0001	

onsemi

DATA SHEET
www.onsemi.com

Noninverting 3-State Buffer

MC74VHC1G126, MC74VHC1GT126

The MC74VHC1G126 / MC74VHC1GT126 is a single gate noninverting 3−state buffer in tiny footprint packages. The MC74VHC1G126 has CMOS−level input thresholds while the MC74VHC1GT126 has TTL−level input thresholds.

The internal circuit is composed of three stages, including a buffered 3−state output which provides high noise immunity and stable output.

The input structures provide protection when voltages up to 5.5 V are applied, regardless of the supply voltage. This allows the device to be used to interface 5 V circuits to 3 V circuits. Some output structures also provide protection when V_{CC} = 0 V and when the output voltage exceeds V_{CC}. These input and output structures help prevent device destruction caused by supply voltage − input/output voltage mismatch, battery backup, hot insertion, etc.

Features

- Designed for 2.0 V to 5.5 V V_{CC} Operation
- 3.5 ns t_{PD} at 5 V (typ)
- Inputs/Outputs Over−Voltage Tolerant up to 5.5 V
- I_{OFF} Supports Partial Power Down Protection
- Source/Sink 8 mA at 3.0 V
- Available in SC−88A, SC−74A, TSOP−5, SOT−553, SOT−953 and UDFN6 Packages
- Chip Complexity < 100 FETs
- −Q Suffix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC−Q100 Qualified and PPAP Capable
- These Devices are Pb−Free, Halogen Free/BFR Free and are RoHS Compliant

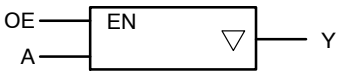
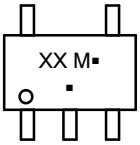
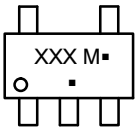
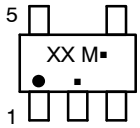
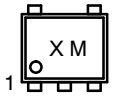
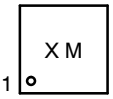


Figure 1. Logic Symbol

MARKING DIAGRAMS

	**SC−88A DF SUFFIX CASE 419A**	
	**SC−74A DBV SUFFIX CASE 318BQ**	
	**TSOP−5 DT SUFFIX CASE 483**	
	**SOT−553 XV5 SUFFIX CASE 463B**	
	**SOT−953 P5 SUFFIX CASE 527AE**	
	**UDFN6 1.45 x 1.0 CASE 517AQ**	
	**UDFN6 1.2 x 1.0 CASE 517AA**	
	**UDFN6 1.0 x 1.0 CASE 517BX**	

XX = Specific Device Code
M = Date Code*
▪ = Pb−Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

See detailed ordering, marking and shipping information in the package dimensions section on page 8 of this data sheet.

MC74VHC1G126, MC74VHC1GT126

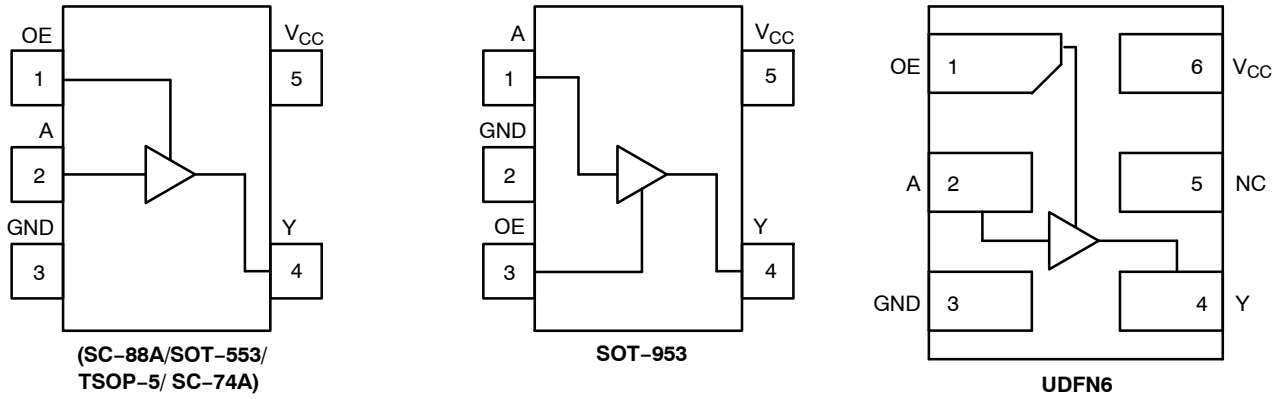


Figure 2. Pinout (Top View)

PIN ASSIGNMENT
(SC−88A/SOT−553/ TSOP−5/SC−74A)

Pin	Function
1	OE
2	A
3	GND
4	Y
5	V_{CC}

PIN ASSIGNMENT (SOT−953)

Pin	Function
1	A
2	GND
3	OE
4	Y
5	V_{CC}

PIN ASSIGNMENT (UDFN)

Pin	Function
1	OE
2	A
3	GND
4	Y
5	NC
6	V_{CC}

FUNCTION TABLE

Input		Output
OE	**A**	**Y**
H	L	L
H	H	H
L	X	Z

X = Don’t Care

MAXIMUM RATINGS

Symbol	Characteristics		Value	Unit
V_{CC}	DC Supply Voltage		−0.5 to +6.5	V
V_{IN}	DC Input Voltage		−0.5 to +6.5	V
V_{OUT}	DC Output Voltage	Active−Mode (High or Low State) Tri−State Mode (Note 1) Power−Down Mode (V_{CC} = 0 V)	−0.5 to V_{CC} + 0.5 −0.5 to +6.5 −0.5 to +6.5	V
I_{IK}	DC Input Diode Current	V_{IN} < GND	−20	mA
I_{OK}	DC Output Diode Current	V_{OUT} < GND	−20	mA
I_{OUT}	DC Output Source/Sink Current		±25	mA
I_{CC} or I_{GND}	DC Supply Current per Supply Pin or Ground Pin		±50	mA
T_{STG}	Storage Temperature Range		−65 to +150	°C
T_L	Lead Temperature, 1 mm from Case for 10 secs		260	°C
T_J	Junction Temperature Under Bias		+150	°C
θ_{JA}	Thermal Resistance (Note 2)	SC−88A SC−74A SOT−553 SOT−953 UDFN6	377 320 324 254 154	°C/W
P_D	Power Dissipation in Still Air	SC−88A SC−74A SOT−553 SOT−953 UDFN6	332 390 386 491 812	mW
MSL	Moisture Sensitivity		Level 1	−
F_R	Flammability Rating	Oxygen Index: 28 to 34	UL 94 V−0 @ 0.125 in	−
V_{ESD}	ESD Withstand Voltage (Note 3)	Human Body Model Charged Device Model	2000 1000	V
$I_{Latchup}$	Latchup Performance (Note 4)		±100	mA

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. Applicable to devices with outputs that may be tri−stated.
2. Measured with minimum pad spacing on an FR4 board, using 10mm−by−1inch, 2 ounce copper trace no air flow per JESD51−7.
3. HBM tested to ANSI/ESDA/JEDEC JS−001−2017. CDM tested to EIA/JESD22−C101−F. JEDEC recommends that ESD qualification to EIA/JESD22−A115−A (Machine Model) be discontinued per JEDEC/JEP172A.
4. Tested to EIA/JESD78 Class II.

RECOMMENDED OPERATING CONDITIONS

Symbol	Characteristics		Min	Max	Unit
V_{CC}	Positive DC Supply Voltage		2.0	5.5	V
V_{IN}	DC Input Voltage		0	5.5	V
V_{OUT}	DC Output Voltage	Active−Mode (High or Low State) Tri−State Mode (Note 1) Power−Down Mode (V_{CC} = 0 V)	0 0 0	V_{CC} 5.5 5.5	V
T_A	Operating Temperature Range		−55	+125	°C
t_r , t_f	Input Rise and Fall Time	V_{CC} = 2.0 V V_{CC} = 2.3 V to 2.7 V V_{CC} = 3.0 V to 3.6 V V_{CC} = 4.5 V to 5.5 V	0 0 0 0	20 20 10 5	ns/V

Functional operation above the stresses listed in the Recommended Operating Ranges is not implied. Extended exposure to stresses beyond the Recommended Operating Ranges limits may affect device reliability.

DC ELECTRICAL CHARACTERISTICS (MC74VHC1G126)

Symbol	Parameter	Test Conditions	V_{CC} (V)	T_A = 25°C			−40°C ≤ T_A ≤ 85°C		−55°C ≤ T_A ≤ 125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
V_{IH}	High−Level Input Voltage		2.0	1.5	–	–	1.5	–	1.5	–	V
			3.0	2.1	–	–	2.1	–	2.1	–	
			4.5	3.15	–	–	3.15	–	3.15	–	
			5.5	3.85	–	–	3.85	–	3.85	–	
V_{IL}	Low−Level Input Voltage		2.0	–	–	0.5	–	0.5	–	0.5	V
			3.0	–	–	0.9	–	0.9	–	0.9	
			4.5	–	–	1.35	–	1.35	–	1.35	
			5.5	–	–	1.65	–	1.65	–	1.65	
V_{OH}	High−Level Output Voltage	V_{IN} = V_{IH} or V_{IL}									V
		I_{OH} = −50 μA	2.0	1.9	2.0	–	1.9	–	1.9	–	
		I_{OH} = −50 μA	3.0	2.9	3.0	–	2.9	–	2.9	–	
		I_{OH} = −50 μA	4.5	4.4	4.5	–	4.4	–	4.4	–	
		I_{OH} = −4 mA	3.0	2.58	–	–	2.48	–	2.34	–	
		I_{OH} = −8 mA	4.5	3.94	–	–	3.80	–	3.66	–	
V_{OL}	Low−Level Output Voltage	V_{IN} = V_{IH} or V_{IL}									V
		I_{OL} = 50 μA	2.0	–	0.0	0.1	–	0.1	–	0.1	
		I_{OL} = 50 μA	3.0	–	0.0	0.1	–	0.1	–	0.1	
		I_{OL} = 50 μA	4.5	–	0.0	0.1	–	0.1	–	0.1	
		I_{OL} = 4 mA	3.0	–	–	0.36	–	0.44	–	0.52	
		I_{OL} = 8 mA	4.5	–	–	0.36	–	0.44	–	0.52	
I_{IN}	Input Leakage Current	V_{IN} = 5.5 V or GND	2.0 to 5.5	–	–	±0.1	–	±1.0	–	±1.0	μA
I_{OZ}	3−State Output Leakage Current	V_{OUT} = 0 V to 5.5 V	5.5	–	–	±0.25	–	±2.5	–	±2.5	μA
I_{OFF}	Power Off Leakage Current	V_{IN} = 5.5 V or V_{OUT} = 5.5 V	0.0	–	–	1.0	–	10	–	10	μA
I_{CC}	Quiescent Supply Current	V_{IN} = V_{CC} or GND	5.5	–	–	1.0	–	20	–	40	μA

DC ELECTRICAL CHARACTERISTICS (MC74VHC1GT126)

Symbol	Parameter	Test Conditions	V_{CC} (V)	T_A = 25°C			−40°C ≤ T_A ≤ 85°C		−55°C ≤ T_A ≤ 125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
V_{IH}	High−Level Input Voltage		2.0	1.0	–	–	1.0	–	1.0	–	V
			3.0	1.4	–	–	1.4	–	1.4	–	
			4.5	2.0	–	–	2.0	–	2.0	–	
			5.5	2.0	–	–	2.0	–	2.0	–	
V_{IL}	Low−Level Input Voltage		2.0	–	–	0.28	–	0.28	–	0.28	V
			3.0	–	–	0.45	–	0.45	–	0.45	
			4.5	–	–	0.8	–	0.8	–	0.8	
			5.5	–	–	0.8	–	0.8	–	0.8	
V_{OH}	High−Level Output Voltage	V_{IN} = V_{IH} or V_{IL}									V
		I_{OH} = −50 μA	2.0	1.9	2.0	–	1.9	–	1.9	–	
		I_{OH} = −50 μA	3.0	2.9	3.0	–	2.9	–	2.9	–	
		I_{OH} = −50 μA	4.5	4.4	4.5	–	4.4	–	4.4	–	
		I_{OH} = −4 mA	3.0	2.58	–	–	2.48	–	2.34	–	
		I_{OH} = −8 mA	4.5	3.94	–	–	3.80	–	3.66	–	
V_{OL}	Low−Level Output Voltage	V_{IN} = V_{IH} or V_{IL}									V
		I_{OL} = 50 μA	2.0	–	0.0	0.1	–	0.1	–	0.1	
		I_{OL} = 50 μA	3.0	–	0.0	0.1	–	0.1	–	0.1	
		I_{OL} = 50 μA	4.5	–	0.0	0.1	–	0.1	–	0.1	
		I_{OL} = 4 mA	3.0	–	–	0.36	–	0.44	–	0.52	
		I_{OL} = 8 mA	4.5	–	–	0.36	–	0.44	–	0.52	
I_{IN}	Input Leakage Current	V_{IN} = 5.5 V or GND	2.0 to 5.5	–	–	±0.1	–	±1.0	–	± 1.0	μA
I_{OZ}	3−State Output Leakage Current	V_{OUT} = 0 V to 5.5 V	5.5	–	–	±0.25	–	± 2.5	–	± 2.5	μA
I_{OFF}	Power Off Leakage Current	V_{IN} = 5.5 V or V_{OUT} = 5.5 V	0	–	–	1.0	–	10	–	10	μA
I_{CC}	Quiescent Supply Current	V_{IN} = V_{CC} or GND	5.5	–	–	1.0	–	20	–	40	μA
I_{CCT}	Increase in Quiescent Supply Current per Input Pin	One Input: V_{IN} = 3.4 V; Other Input at V_{CC} or GND	5.5	–	–	1.35	–	1.5	–	1.65	mA

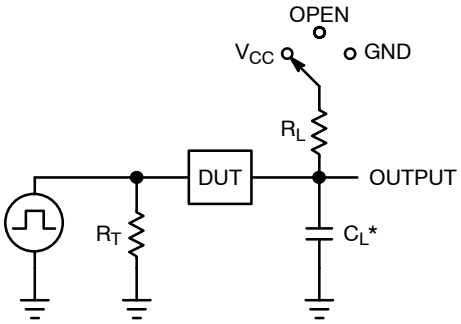
AC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Conditions	V_{CC} (V)	T_A = 25°C			−40°C ≤ T_A ≤ 85°C		−55°C ≤ T_A ≤ 125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
t_{PLH}, t_{PHL}	Propagation Delay, A to Y (Figures 3 and 4)	C_L = 15 pF	3.0 to 3.6	–	4.5	8.0	–	9.5	–	12.0	ns
		C_L = 50 pF		–	6.4	11.5	–	13.0	–	16.0	
		C_L = 15 pF	4.5 to 5.5	–	3.5	5.5	–	6.5	–	8.5	
		C_L = 50 pF		–	4.5	7.5	–	8.5	–	10.5	
t_{PZL}, t_{PZH}	Output Enable Time, OE to Y (Figures 3 and 4)	C_L = 15 pF	3.0 to 3.6	–	4.5	8.0	–	9.5	–	11.5	ns
		C_L = 50 pF		–	6.4	11.5	–	13.0	–	15.0	
		C_L = 15 pF	4.5 to 5.5	–	3.5	5.1	–	6.0	–	8.5	
		C_L = 50 pF		–	4.5	7.1	–	8.0	–	10.5	
t_{PLZ}, t_{PHZ}	Output Disable Time, OE to Y (Figures 3 and 4)	C_L = 15 pF	3.0 to 3.6	–	6.5	9.7	–	11.5	–	14.5	ns
		C_L = 50 pF		–	8.0	13.2	–	15.0	–	18.0	
		C_L = 15 pF	4.5 to 5.5	–	4.8	6.8	–	8.0	–	10.0	
		C_L = 50 pF		–	7.0	8.8	–	10.0	–	12.0	
C_{IN}	Input Capacitance			–	4.0	10	–	10	–	10	pF
C_{OUT}	Output Capacitance	Output in High Impedance State		–	6.0	–	–	–	–	–	pF

		Typical @ 25°C, V_{CC} = 5.0 V	
C_{PD}	Power Dissipation Capacitance (Note 5)	8.0	pF

5. C_{PD} is defined as the value of the internal equivalent capacitance which is calculated from the operating current consumption without load. Average operating current can be obtained by the equation: $I_{CC(OPR)} = C_{PD} \bullet V_{CC} \bullet f_{in} + I_{CC}$. C_{PD} is used to determine the no−load dynamic power consumption; $P_D = C_{PD} \bullet V_{CC}^2 \bullet f_{in} + I_{CC} \bullet V_{CC}$.

MC74VHC1G126, MC74VHC1GT126



C_L includes probe and jig capacitance
R_T is Z_{OUT} of pulse generator (typically 50 Ω)
f = 1 MHz

Figure 3. Test Circuit

Test	Switch Position	C_L, pF	R_L, Ω
t_{PLH} / t_{PHL}	Open	See AC Characteristics Table	X
t_{PLZ} / t_{PZL}	V_{CC}		1 k
t_{PHZ} / t_{PZH}	GND		1 k

X = Don't Care

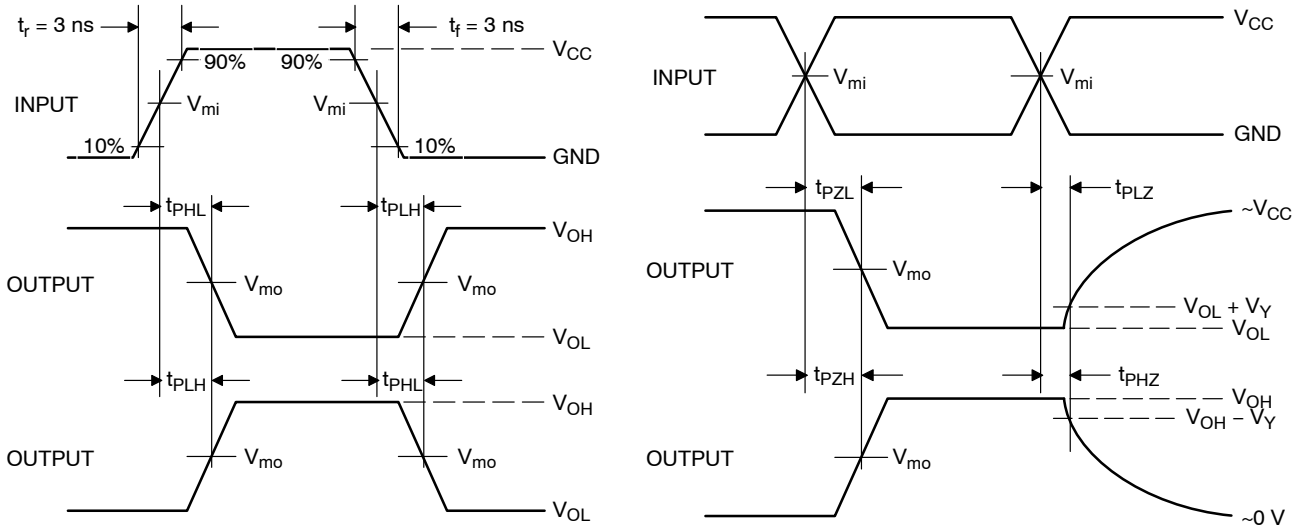


Figure 4. Switching Waveforms

V_{CC}, V	V_{mi}, V	V_{mo}, V		V_Y, V
		t_{PLH}, t_{PHL}	t_{PZL}, t_{PLZ}, t_{PZH}, t_{PHZ}	
3.0 to 3.6	V_{CC}/2	V_{CC}/2	V_{CC}/2	0.3
4.5 to 5.5	V_{CC}/2	V_{CC}/2	V_{CC}/2	0.3

MC74VHC1G126, MC74VHC1GT126

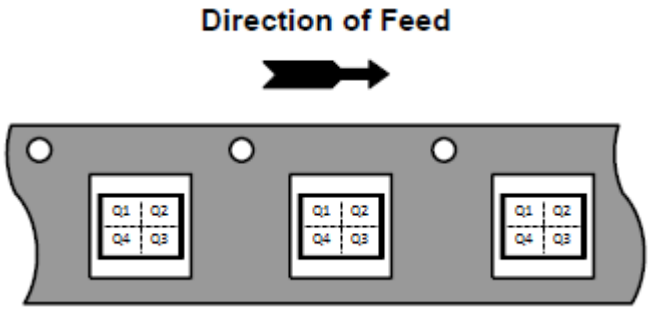
ORDERING INFORMATION

Device	Packages	Specific Device Code	Pin 1 Orientation (See below)	Shipping†
MC74VHC1G126DFT1G	SC−88A	W2	Q2	3000 / Tape & Reel
MC74VHC1G126DFT2G	SC−88A	W2	Q4	3000 / Tape & Reel
MC74VHC1G126DFT1G−Q*	SC−88A	W2	Q2	3000 / Tape & Reel
MC74VHC1G126DFT2G−Q*	SC−88A	W2	Q4	3000 / Tape & Reel
MC74VHC1GT126DFT1G	SC−88A	W3	Q2	3000 / Tape & Reel
MC74VHC1GT126DFT2G	SC−88A	W3	Q4	3000 / Tape & Reel
MC74VHC1GT126DFT2G−Q*	SC−88A	W3	Q4	3000 / Tape & Reel
MC74VHC1GT126DFT1G−Q*	SC−88A	W3	Q2	3000 / Tape & Reel
MC74VHC1G126DBVT1G	SC−74A	W2	Q4	3000 / Tape & Reel
MC74VHC1GT126DBVT1G	SC−74A	W3	Q4	3000 / Tape & Reel
MC74VHC1GT126DBVT1G−Q*	SC−74A	W3	Q4	3000 / Tape & Reel
MC74VHC1G126XV5T2G (Please contact **onsemi**)	SOT−553	TBD	Q4	4000 / Tape & Reel
MC74VHC1GT126XV5T2G (Please contact **onsemi**)	SOT−553	TBD	Q4	4000 / Tape & Reel
MC74VHC1G126P5T5G	SOT−953	J	Q2	8000 / Tape & Reel
MC74VHC1GT126P5T5G	SOT−953	R	Q2	8000 / Tape & Reel
MC74VHC1G126MU1TCG (Please contact **onsemi**)	UDFN6, 1.45 x 1.0, 0.5P	TBD	Q4	3000 / Tape & Reel
MC74VHC1GT126MU1TCG	UDFN6, 1.45 x 1.0, 0.5P	T (Rotated 270° CW)	Q4	3000 / Tape & Reel
MC74VHC1GT126MU2TCG	UDFN6, 1.2 x 1.0, 0.4P	9	Q4	3000 / Tape & Reel
MC74VHC1G126MU3TCG (Please contact **onsemi**)	UDFN6, 1.0 x 1.0, 0.35P	TBD	Q4	3000 / Tape & Reel
MC74VHC1GT126MU3TCG	UDFN6, 1.0 x 1.0, 0.35P	R (Rotated 180° CW)	Q4	3000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

*−Q Suffix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC−Q100 Qualified and PPAP Capable.

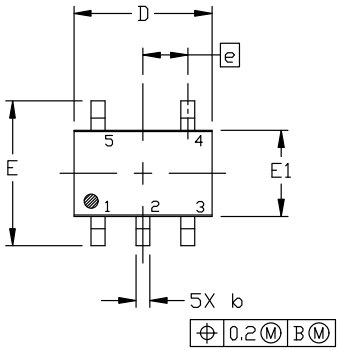
Pin 1 Orientation in Tape and Reel

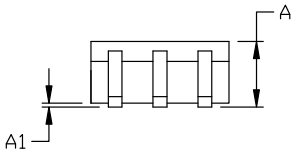


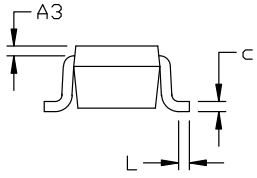
MC74VHC1G126, MC74VHC1GT126

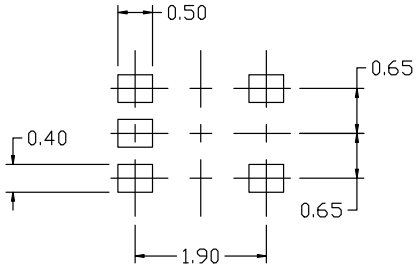
PACKAGE DIMENSIONS

SC−88A (SC−70−5/SOT−353)
CASE 419A−02
ISSUE M









RECOMMENDED
MOUNTING FOOTPRINT

* For additional information on our Pb−Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

NOTES:

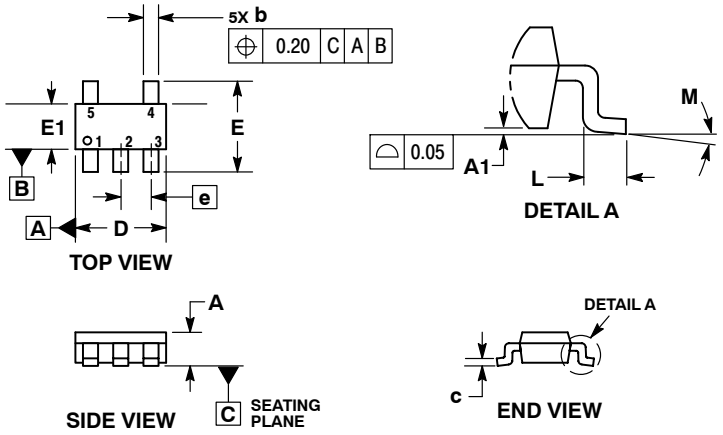
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. 419A−01 OBSOLETE. NEW STANDARD 419A−02
4. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.1016MM PER SIDE.

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.80	0.95	1.10
A1	---	---	0.10
A3	0.20 REF		
b	0.10	0.20	0.30
c	0.10	---	0.25
D	1.80	2.00	2.20
E	2.00	2.10	2.20
E1	1.15	1.25	1.35
e	0.65 BSC		
L	0.10	0.15	0.30

MC74VHC1G126, MC74VHC1GT126

PACKAGE DIMENSIONS

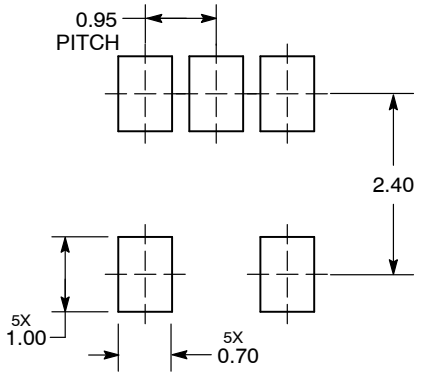
SC−74A
CASE 318BQ
ISSUE B



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15 PER SIDE.

	MILLIMETERS	
DIM	MIN	MAX
A	0.90	1.10
A1	0.01	0.10
b	0.25	0.50
c	0.10	0.26
D	2.85	3.15
E	2.50	3.00
E1	1.35	1.65
e	0.95 BSC	
L	0.20	0.60
M	0 °	10 °

RECOMMENDED SOLDERING FOOTPRINT*



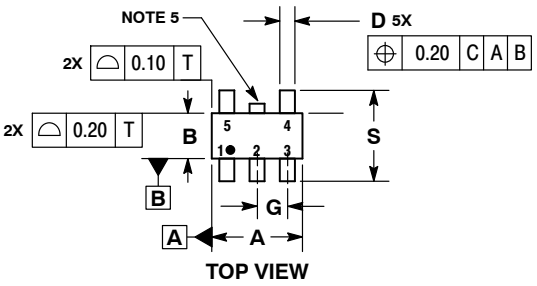
DIMENSIONS: MILLIMETERS

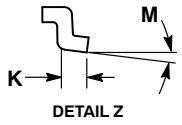
*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

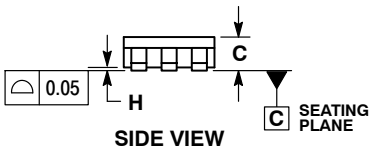
MC74VHC1G126, MC74VHC1GT126

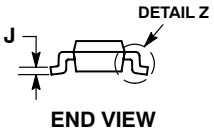
PACKAGE DIMENSIONS

TSOP−5
CASE 483−02
ISSUE N





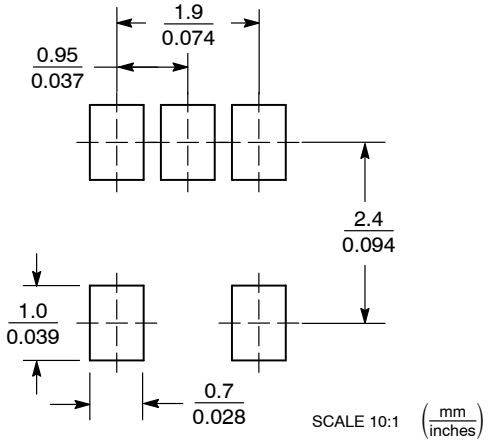




NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15 PER SIDE. DIMENSION A.
5. OPTIONAL CONSTRUCTION: AN ADDITIONAL TRIMMED LEAD IS ALLOWED IN THIS LOCATION. TRIMMED LEAD NOT TO EXTEND MORE THAN 0.2 FROM BODY.

	MILLIMETERS	
DIM	MIN	MAX
A	2.85	3.15
B	1.35	1.65
C	0.90	1.10
D	0.25	0.50
G	0.95 BSC	
H	0.01	0.10
J	0.10	0.26
K	0.20	0.60
M	0 °	10 °
S	2.50	3.00

SOLDERING FOOTPRINT*

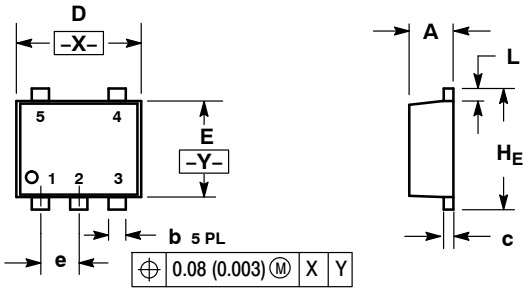


*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

MC74VHC1G126, MC74VHC1GT126

PACKAGE DIMENSIONS

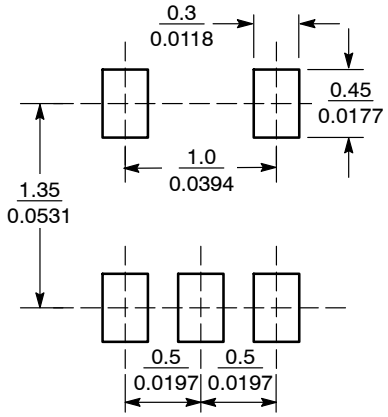
SOT−553, 5 LEAD
CASE 463B
ISSUE C



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.55	1.60	1.65	0.061	0.063	0.065
E	1.15	1.20	1.25	0.045	0.047	0.049
e		0.50 BSC			0.020 BSC	
L	0.10	0.20	0.30	0.004	0.008	0.012
H_E	1.55	1.60	1.65	0.061	0.063	0.065

SOLDERING FOOTPRINT*

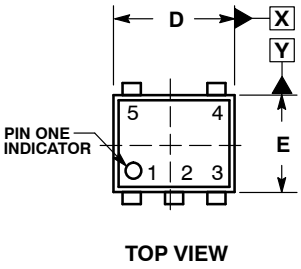


*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

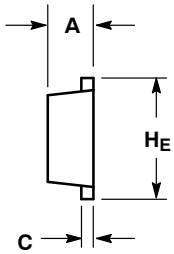
MC74VHC1G126, MC74VHC1GT126

PACKAGE DIMENSIONS

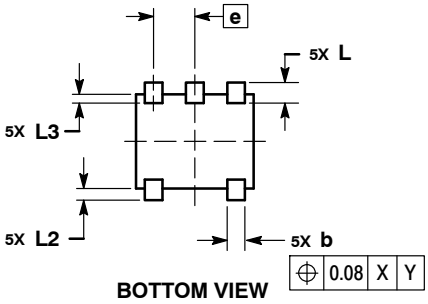
SOT−953
CASE 527AE
ISSUE E



TOP VIEW



SIDE VIEW

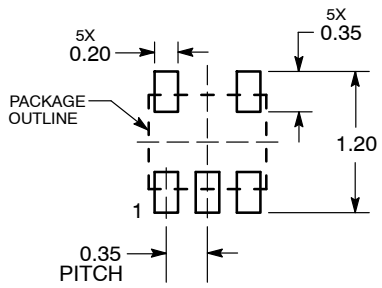


BOTTOM VIEW

NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF THE BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

	MILLIMETERS		
DIM	MIN	NOM	MAX
A	0.34	0.37	0.40
b	0.10	0.15	0.20
C	0.07	0.12	0.17
D	0.95	1.00	1.05
E	0.75	0.80	0.85
e	0.35 BSC		
H_E	0.95	1.00	1.05
L	0.175 REF		
L2	0.05	0.10	0.15
L3	---	---	0.15

SOLDERING FOOTPRINT*



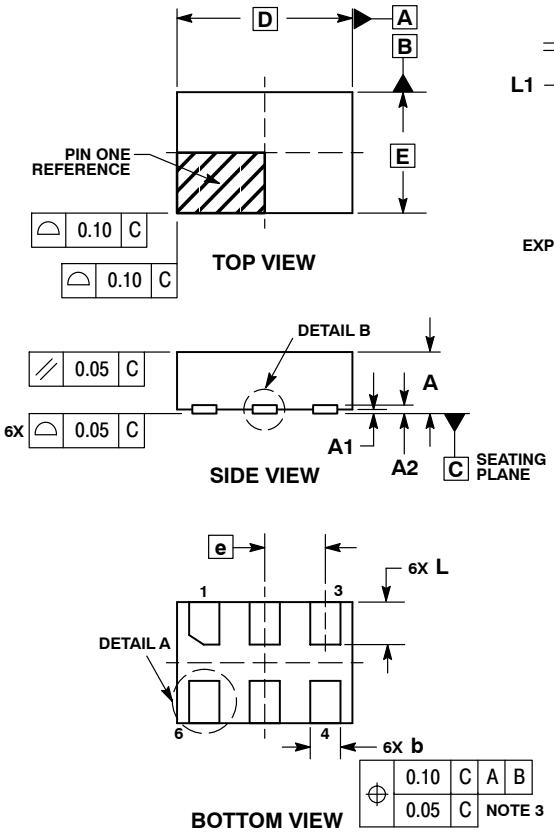
DIMENSIONS: MILLIMETERS

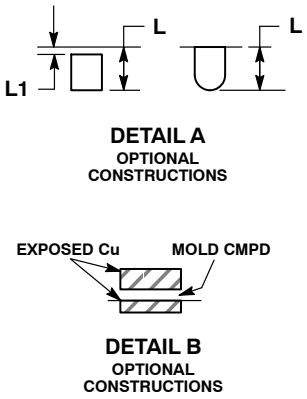
*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

MC74VHC1G126, MC74VHC1GT126

PACKAGE DIMENSIONS

UDFN6, 1.45x1.0, 0.5P
CASE 517AQ
ISSUE O

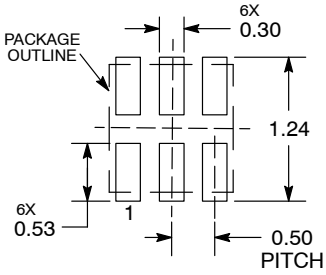




NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30 mm FROM THE TERMINAL TIP.

	MILLIMETERS	
DIM	MIN	MAX
A	0.45	0.55
A1	0.00	0.05
A2	0.07 REF	
b	0.20	0.30
D	1.45 BSC	
E	1.00 BSC	
e	0.50 BSC	
L	0.30	0.40
L1	---	0.15

MOUNTING FOOTPRINT



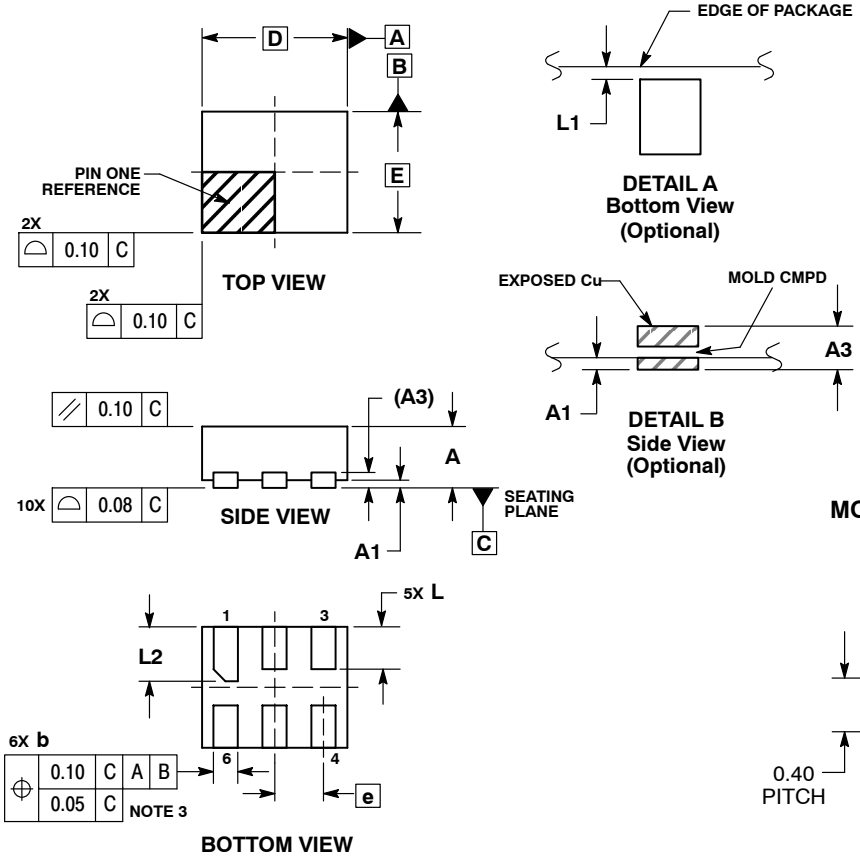
DIMENSIONS: MILLIMETERS

*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

MC74VHC1G126, MC74VHC1GT126

PACKAGE DIMENSIONS

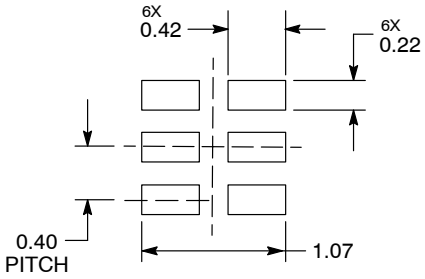
UDFN6, 1.2x1.0, 0.4P
CASE 517AA
ISSUE D



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.25 AND 0.30 mm FROM TERMINAL.
4. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.

	MILLIMETERS	
DIM	MIN	MAX
A	0.45	0.55
A1	0.00	0.05
A3	0.127 REF	
b	0.15	0.25
D	1.20 BSC	
E	1.00 BSC	
e	0.40 BSC	
L	0.30	0.40
L1	0.00	0.15
L2	0.40	0.50

MOUNTING FOOTPRINT*



DIMENSIONS: MILLIMETERS

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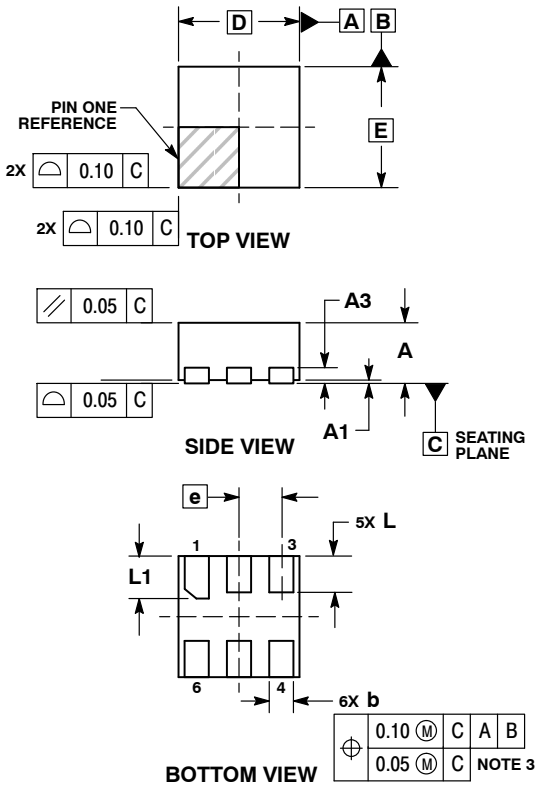
MC74VHC1G126, MC74VHC1GT126

PACKAGE DIMENSIONS

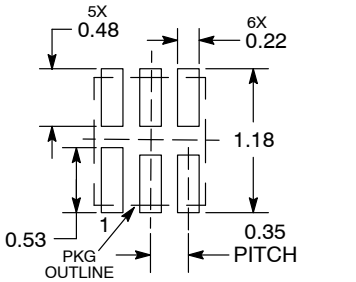
UDFN6, 1x1, 0.35P
CASE 517BX
ISSUE O



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.20 MM FROM TERMINAL TIP.
4. PACKAGE DIMENSIONS EXCLUSIVE OF BURRS AND MOLD FLASH.

	MILLIMETERS	
DIM	MIN	MAX
A	0.45	0.55
A1	0.00	0.05
A3	0.13 REF	
b	0.12	0.22
D	1.00 BSC	
E	1.00 BSC	
e	0.35 BSC	
L	0.25	0.35
L1	0.30	0.40

RECOMMENDED SOLDERING FOOTPRINT*



DIMENSIONS: MILLIMETERS

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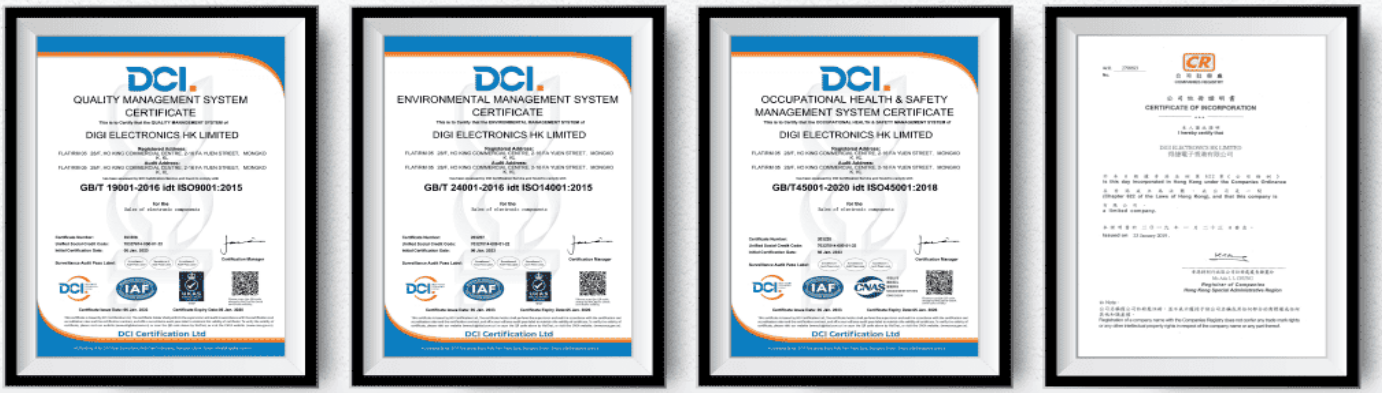

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