

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Micro Commercial Components** 

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# UMH2N

## **Features**

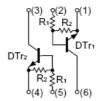
- Halogen free available upon request by adding suffix "-HF"
- Two DTC144E chips in one package
- Mounting possible with SOT-363 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

## **Mechanical Data**

Case: SOT-363, Molded Plastic
Polarity: See Diagram (NPN\*2)

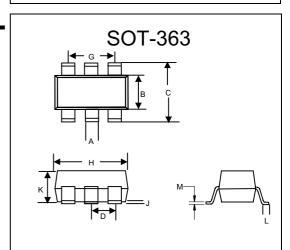
## Maximum Ratings @ $25^{\circ}$ Unless Otherwise Specified

Symbol	Parameter	Value	Units		
OFF CHARACTERISTICS					
V <sub>cc</sub>	Supply Voltage	50	V		
Vi	Input voltage	-10 to +40	V		
I <sub>C(MAX)</sub>	Output current	100	mA		
P <sub>D</sub>	Power dissipation	150	mW		
TJ	Junction temperature	150	°C		
T <sub>stg</sub>	Storage temperature	-55~+150	°C		



Marking: H2

## **Dual Transistors**



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.006	.014	0.15	0.35	
В	.045	.053	1.15	1.35	
С	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
Н	.071	.087	1.80	2.20	
J		.004		0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	

# UMH2N



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### Electrical Characteristics (T<sub>a</sub>=25℃)

Parameter	Symbol	Test conditions	Min	Тур	Max	Unit
Input turn-on voltage	V <sub>i(on)</sub>	V <sub>CC</sub> =0.3V, I <sub>O</sub> =2mA	3			V
Input cut-off voltage	$V_{i(off)}$	V <sub>CC</sub> =5V, I <sub>O</sub> =100μA			0.5	V
Output voltage	$V_{O(on)}$	I <sub>O</sub> =10mA, I <sub>i</sub> =0.5mA			0.3	V
Input cut-off current	l <sub>i</sub>	V <sub>i</sub> =5V			0.18	mA
Output cut-off current	I <sub>O(off)</sub>	V <sub>CC</sub> =50V, V <sub>i</sub> =0			0.5	μΑ
DC current gain	Gi	V <sub>O</sub> =5V, I <sub>O</sub> =5mA	68			
Transition frequency	f <sub>T</sub>	V <sub>O</sub> =10V, I <sub>O</sub> =5mA, f =100MHz		250		MHz
Input resistance	R <sub>1</sub>		32.9		61.1	ΚΩ
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>		0.8		1.2	

# UMH2N

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# Typical Characteristics



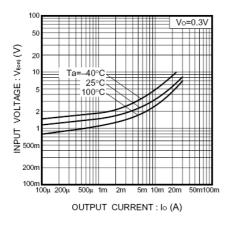


Fig.1 Input voltage vs. output current (ON characteristics)

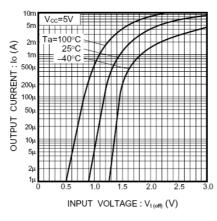


Fig.2 Output current vs. input voltage (OFF characteristics)

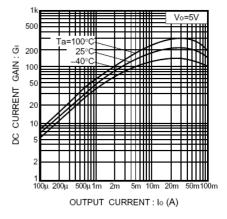


Fig.3 DC current gain vs. output current

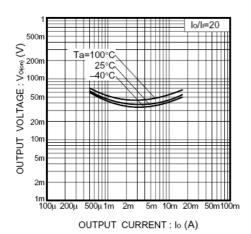


Fig.4 Output voltage vs. output current



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#### **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel 3 Kpcs/Reel

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