

## **Excellent Integrated System Limited**

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[Micro Commercial Components \(MCC\)](#)  
[UMH2N-TP](#)

For any questions, you can email us directly:

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**M·C·C·**

Micro Commercial Components



Micro Commercial Components  
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## Features

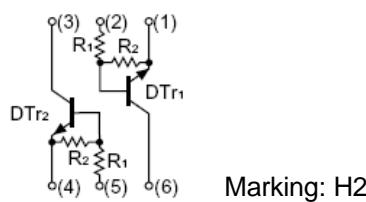
- Halogen free available upon request by adding suffix "-HF"
- Two DTC144E chips in one package
- Mounting possible with SOT-363 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering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

## Mechanical Data

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

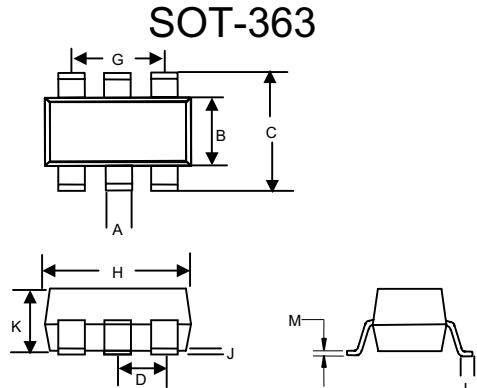
### Maximum Ratings @ 25°C Unless Otherwise Specified

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



**UMH2N**

**Dual Transistors**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.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 ( $T_a=25^\circ C$ )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
<b>Input turn-on voltage</b>	$V_{i(on)}$	$V_{CC}=0.3V, I_o=2mA$	3			V
<b>Input cut-off voltage</b>	$V_{i(off)}$	$V_{CC}=5V, I_o=100\mu A$			0.5	V
<b>Output voltage</b>	$V_{O(on)}$	$I_o=10mA, I_i=0.5mA$			0.3	V
<b>Input cut-off current</b>	$I_i$	$V_i=5V$			0.18	mA
<b>Output cut-off current</b>	$I_{O(off)}$	$V_{CC}=50V, V_i=0$			0.5	$\mu A$
<b>DC current gain</b>	$G_i$	$V_o=5V, I_o=5mA$	68			
<b>Transition frequency</b>	$f_T$	$V_o=10V, I_o=5mA, f=100MHz$		250		MHz
<b>Input resistance</b>	$R_i$		32.9		61.1	$K\Omega$
<b>Resistance ratio</b>	$R_2/R_1$		0.8		1.2	

# UMH2N

## Typical Characteristics

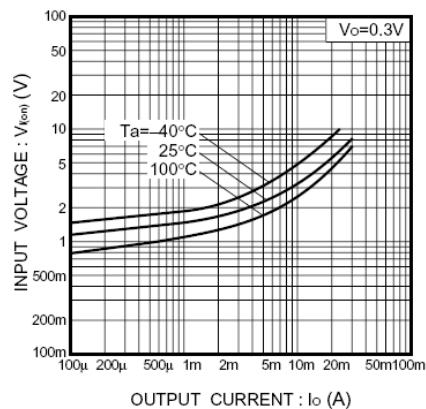


Fig.1 Input voltage vs. output current  
(ON characteristics)

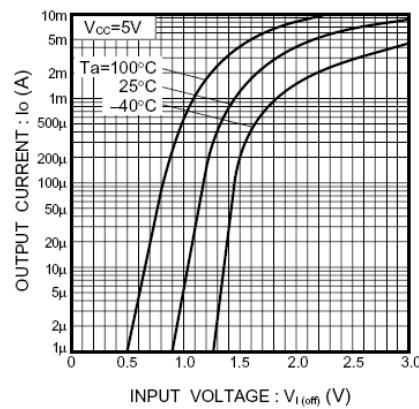


Fig.2 Output current vs. input voltage  
(OFF characteristics)

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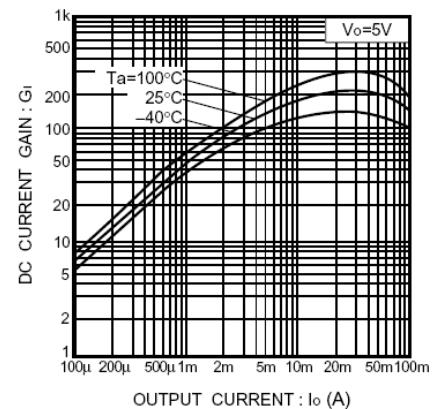


Fig.3 DC current gain vs. output current

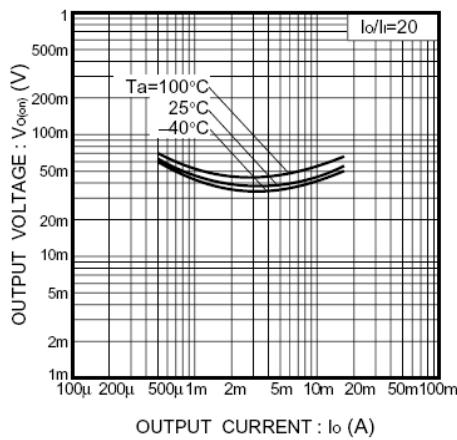


Fig.4 Output voltage vs. output current



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**Ordering Information :**

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

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