



Micro Commercial Components

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UMH2N

Features

- 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

Dual Transistors

Mechanical Data

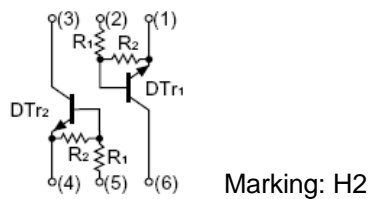
- Case: SOT-363, Molded Plastic
- Polarity: See Diagram (NPN*2)

Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Parameter	Value	Units
OFF CHARACTERISTICS			
V _{CC}	Supply Voltage	50	V
V _i	Input voltage	-10 to +40	V
I _{C(MAX)}	Output current	100	mA
P _D	Power dissipation	150	mW
T _J	Junction temperature	150	°C
T _{stg}	Storage temperature	-55~+150	°C

SOT-363

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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	



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Electrical Characteristics (T_a=25°C)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Input turn-on voltage	V _{i(on)}	V _{CC} =0.3V, I _O =2mA	3			V
Input cut-off voltage	V _{i(off)}	V _{CC} =5V, I _O =100μA			0.5	V
Output voltage	V _{O(on)}	I _O =10mA, I _i =0.5mA			0.3	V
Input cut-off current	I _i	V _i =5V			0.18	mA
Output cut-off current	I _{O(off)}	V _{CC} =50V, V _i =0			0.5	μA
DC current gain	G _i	V _O =5V, I _O =5mA	68			
Transition frequency	f _T	V _O =10V, I _O =5mA, f=100MHz		250		MHz
Input resistance	R ₁		32.9		61.1	KΩ
Resistance ratio	R ₂ /R ₁		0.8		1.2	

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Typical Characteristics



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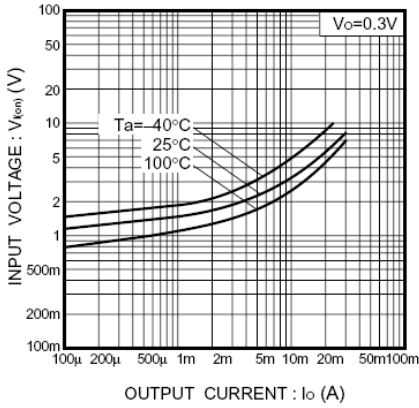


Fig.1 Input voltage vs. output current (ON characteristics)

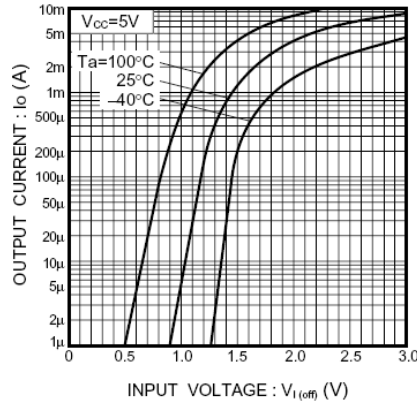


Fig.2 Output current vs. input voltage (OFF characteristics)

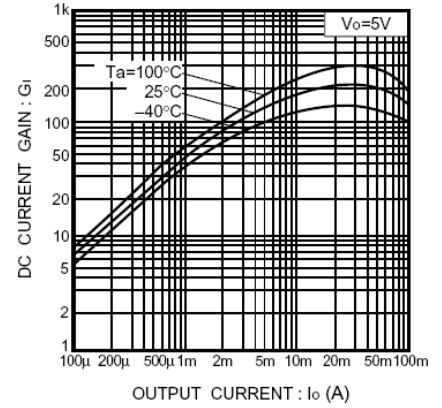


Fig.3 DC current gain vs. output current

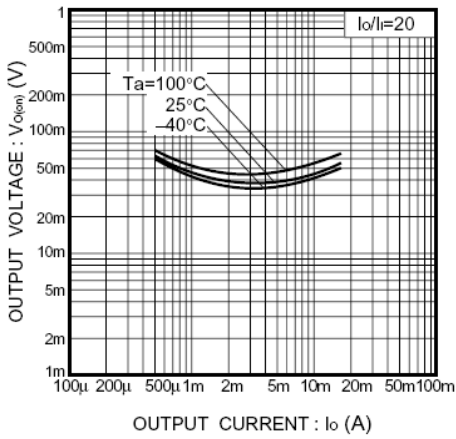


Fig.4 Output voltage vs. output current



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Ordering Information :

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

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