



Micro Commercial Components



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UMH1N

Digital Transistors

Features

- Two DTC124E chip in a 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

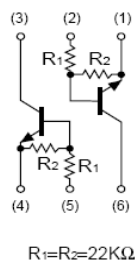
Absolute maximum ratings @ 25 °C

Symbol	Parameter	Value	Unit
V_{CC}	Supply voltage	50	V
V_{IN}	Input voltage	-10~40	V
I_O	Output current	30	mA
$I_{C(MAX)}$	Collector Current	100	mA
P_d	Power dissipation	150	mW
T_j	Junction temperature	150	°C
T_{stg}	Storage temperature	-55~150	°C

Electrical Characteristics @ 25 °C

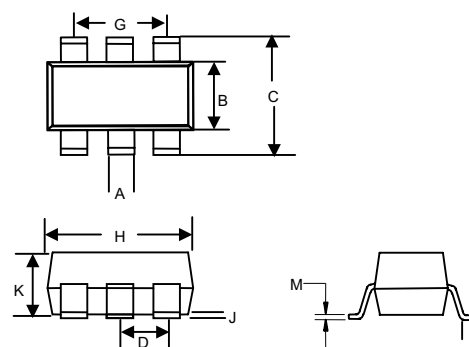
Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage ($V_{CC}=5V$, $I_O=100\mu A$)	---	---	0.5	V
$V_{I(on)}$	($V_O=0.2V$, $I_O=5mA$)	3.0	---	---	V
$V_{O(on)}$	Output voltage ($I_O/I_I=10mA/0.5mA$)	---	0.1	0.3	V
I_I	Input current ($V_I=5V$)	---	---	0.36	mA
$I_{O(off)}$	Output current ($V_{CC}=50V$, $V_I=0$)	---	---	0.5	μA
G_I	DC current gain ($V_O=5V$, $I_O=5mA$)	56	---	---	
R_1	Input resistance	15.4	22	28.6	K Ω
R_2/R_1	Resistance ratio	0.8	1.0	1.2	
f_T	Transition frequency ($V_{CE}=10V$, $I_E=-5mA$, $f=100MHz$)	---	250	---	MHz

Equivalent circuit



Marking :H1

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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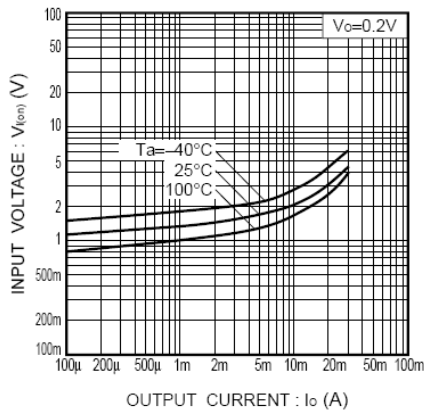


Fig.1 Input voltage vs. output current (ON characteristics)

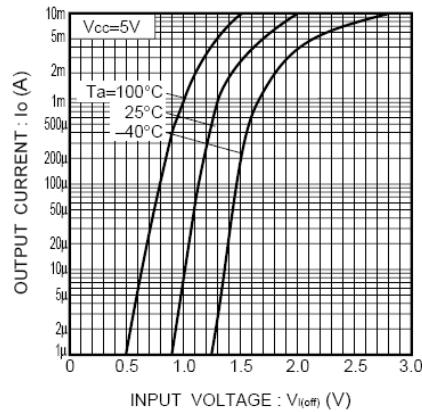


Fig.2 Output current vs. input voltage (OFF characteristics)

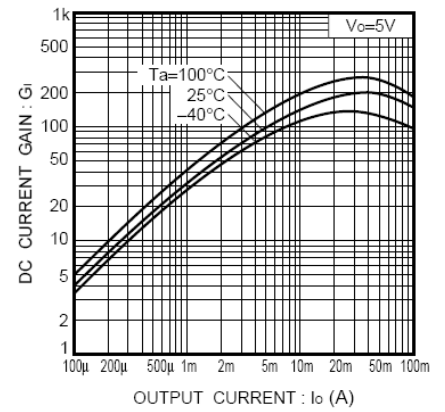


Fig.3 DC current gain vs. output current

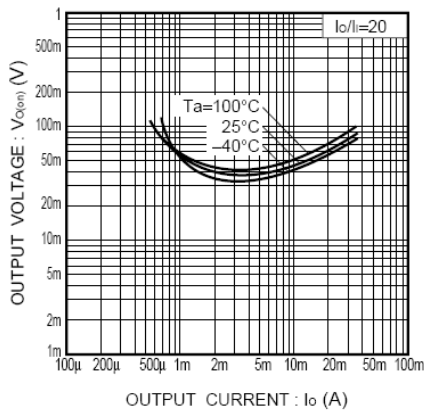


Fig.4 Output voltage vs. output current

Ordering Information :

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

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