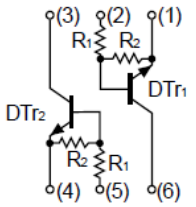
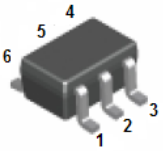
UMH2N

Dual Digital Transistor(NPN+NPN)

FEATURES

- Two DTC144EYs chips in SOT-363 package.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area can be cut in half.





SOT-363

APPLICATIONS

- Dual NPN small signal surface mount transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
UMH2N	H2	SOT-363

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	50	V
V_{IN}	Input Voltage	40	V
I_O	Output Current	30	mA
$I_{C(MAX.)}$	Collector Current	100	mA
P_c	Power Dissipation (NOTE 1)	150	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	℃

NOTE 1: 120mW per element must not be exceeded.

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(off)}$	V_{CC}=5V,I_O=100μA	0.5	-	-	V
	$V_{I(on)}$	V_O=0.3V,I_I=2mA	-	-	3	V
Output Voltage	$V_{O(on)}$	I_o/ I_I=10mA /0.5mA	-	0.1	0.3	V
Input Current	I_I	V_I=5V	-	-	0.18	mA
Output Current	$I_{O(off)}$	V_{CC}=50V, V_I=0V	-	-	0.5	uA
DC Current Gain	G_I	V_O=5V, I_O=5mA	68	-	-	-
Input Resistor	R_1	-	32.9	47	61.1	kΩ
Resistance Ratio	R_2/R_1	-	0.8	1	1.2	-
Gain-Bandwidth Product (NOTE 2)	f_T	V_{CE}=10V,I_E=-5mA, f=100MHz	-	250	-	MHz

NOTE 2: Transition frequency of the device.

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

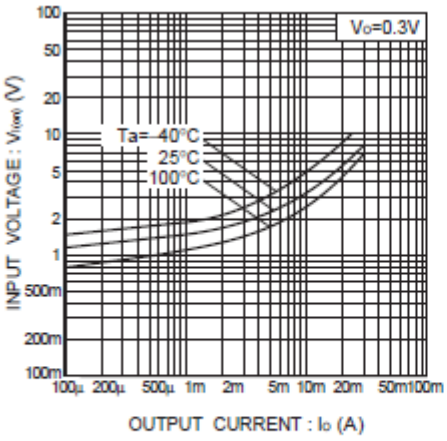


Fig.1 Input voltage vs. output current (ON characteristics)

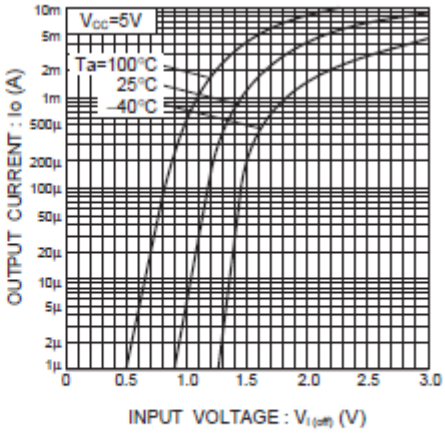


Fig.2 Output current vs. input voltage (OFF characteristics)

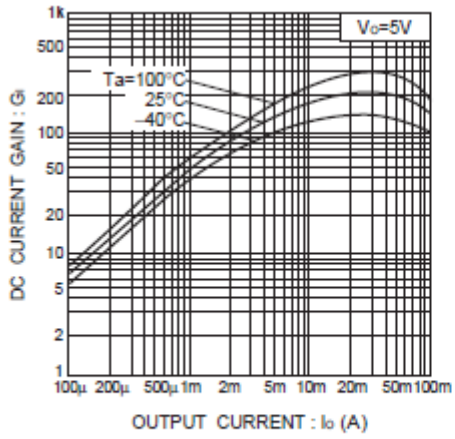


Fig.3 DC current gain vs. output current

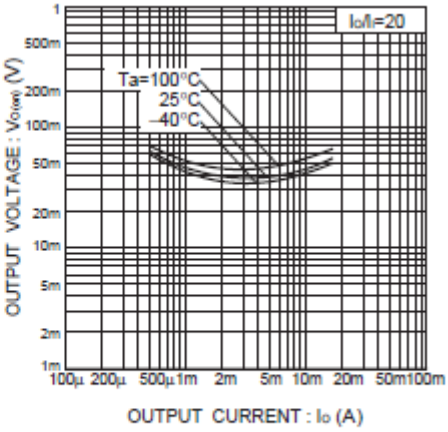


Fig.4 Output voltage vs. output current

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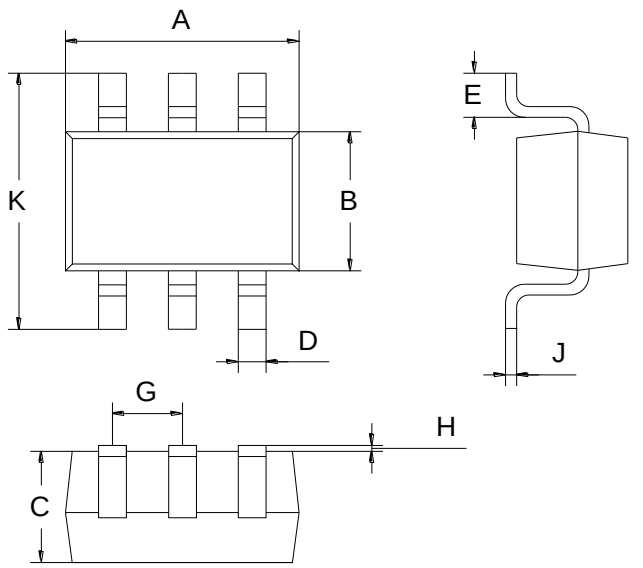
Dual Digital Transistor(NPN+NPN)

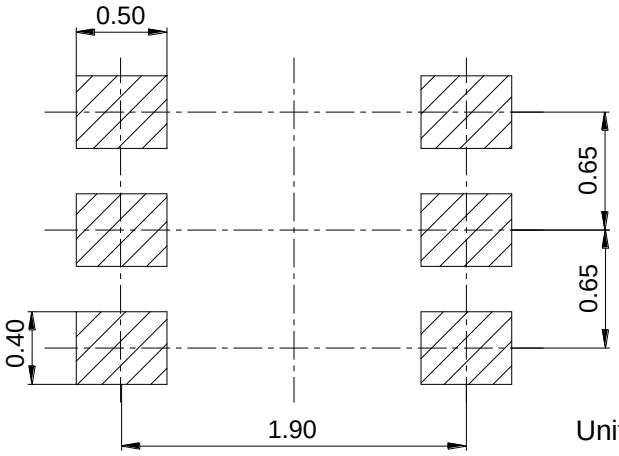
PACKAGE OUTLINE

Plastic surface mounted package SOT-363



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
UMH2N	SOT-363	3000 pcs / Tape & Reel