CHINA BASE
INTERNATIONAL

SOT-363
UMH5N

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Digital Transistors (Built-in Resistors)

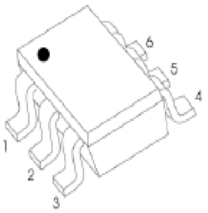
Dual Digital Transistors (NPN+NPN)

FEATURES

- Two DTC124E chips in a package
- Transistor elements are independent, eliminating interference
- Mounting cost and area can be cut in half

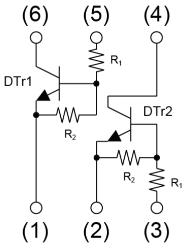
MARKING:H5

SOT-363



UMH5N

(1) DTr1 GND(Emitter)
(2) DTr2 GND(Emitter)
(3) DTr2 IN(Base)
(4) DTr2 OUT(Collector)
(5) DTr1 IN(Base)
(6) DTr1 OUT(Collector)



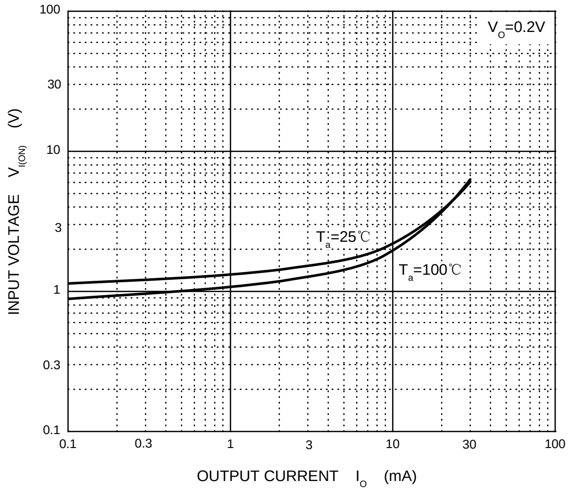
Absolute maximum ratings(Ta=25℃)

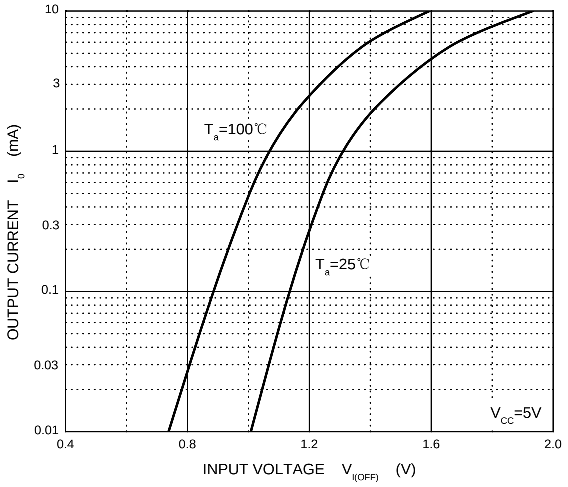
Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	50	V
Input voltage	V_{IN}	-10~40	V
Output current	I_O	30	mA
	I_C	100	
Power dissipation	Pd	150	mW
Operation Junction and Storage Temperature Range	T_J,T_{stg}	-55~+150	℃

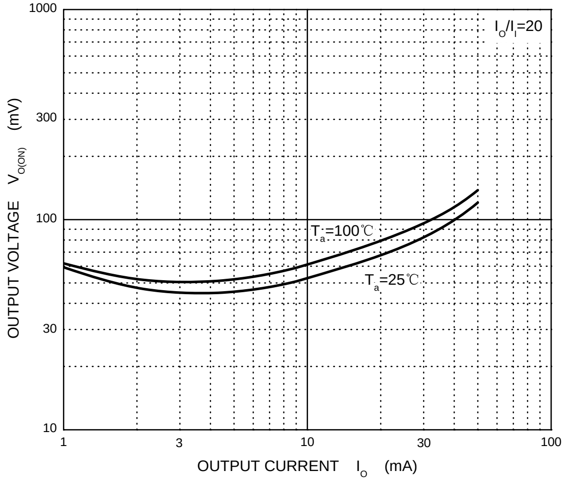
Electrical characteristics (Ta=25℃)

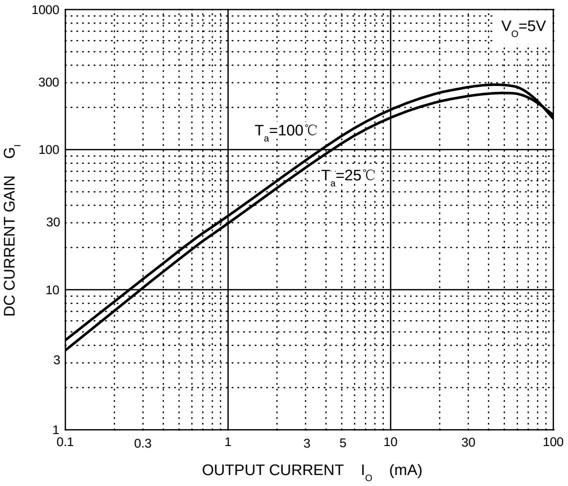
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Input voltage	$V_{I(off)}$	0.5			V	V_{CC}=5V, I_O=100μA
	$V_{I(on)}$			3		V_O=0.2V, I_O=5mA
Output voltage	$V_{O(on)}$		0.1	0.3	V	I_O/I_I=10mA/0.5mA
Input current	I_I			0.36	mA	V_I=5V
Output current	$I_{O(off)}$			0.5	μA	V_{CC}=50V, V_I=0
DC current gain	G_I	56				V_O=5V, I_O=5mA
Input resistance	R_1	15.4	22	28.6	kΩ	
Resistance ratio	R_2/R_1	0.8	1	1.2		
Transition frequency	f_T		250		MHz	V_{CE}=10V, I_E=5mA, f=100MHz

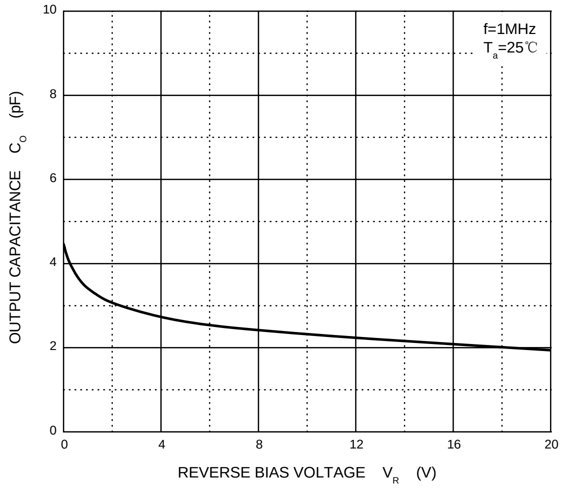
Typical Characteristics

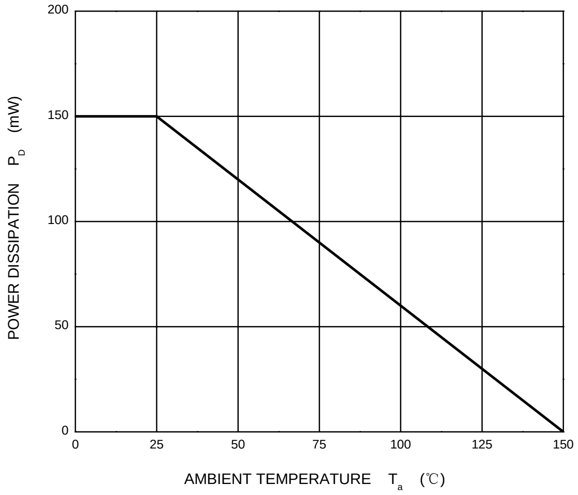

ON Characteristics


OFF Characteristics


$V_{O(ON)}$ —— I_O


G_I —— I_O


C_O —— V_R


P_D —— T_a