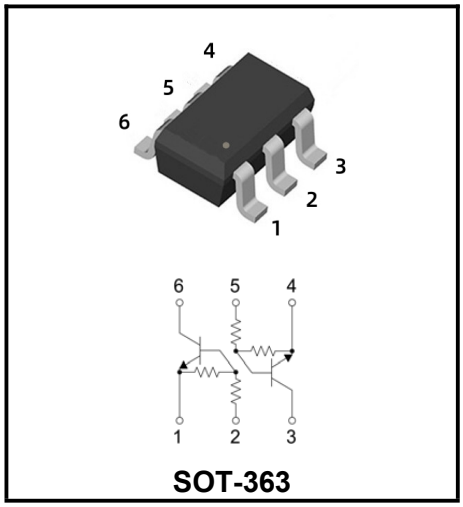
Dual Digital Transistors (NPN+NPN)



SOT-363

Features

- Two DTC144E chips in a package
- Mounting possible with SOT-363 automatic mounting machines
- Transistor elements are independent,eliminating interference
- Mouting cost and area be cut in half

Marking Code	
UMH2N	H2

Absolute Maximum Ratings (Ta=25℃)

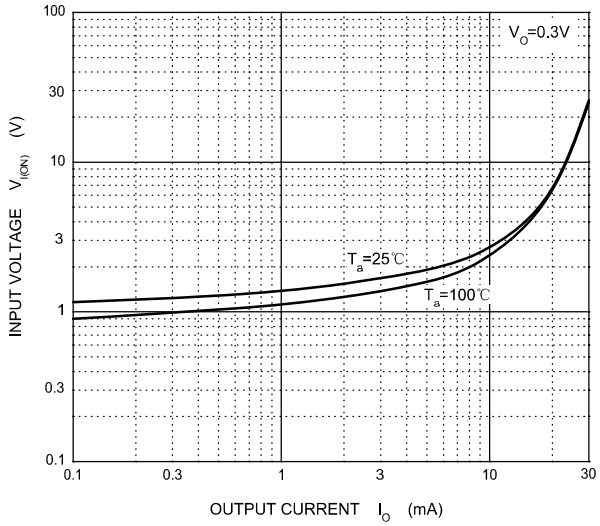
Symbol	Parameter	Value	Units
V_{CC}	Supply Voltage	50	V
V_i	Input voltage	-10 to +40	V
$I_{C(MAX)}$	Output current	100	mA
P_D	Power dissipation	150	mW
T_J	Junction temperature	150	℃
T_{stg}	Storage temperature	-55~+150	℃

Electrical Characteristics (Ta=25℃ unless otherwise specified.)

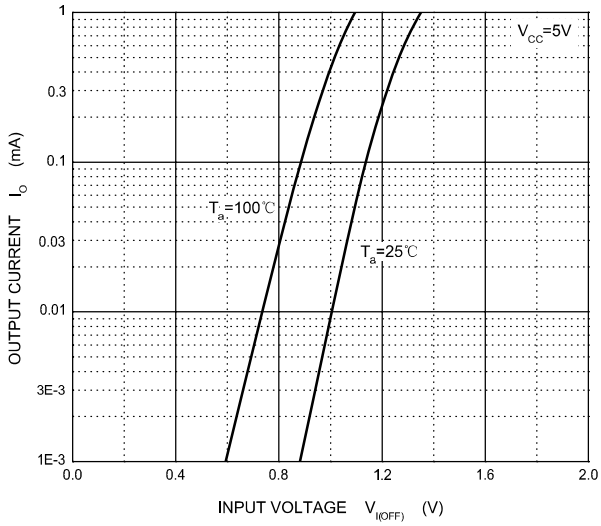
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Input turn-on voltage	$V_{i(on)}$	V_{CC}=0.3V, I_O=2mA			3	V
Input cut-off voltage	$V_{i(off)}$	V_{CC}=5V, I_O=100μA	0.5			V
Output voltage	$V_{o(on)}$	I_O=10mA, I_i=0.5mA			0.3	V
Input cut-off current	I_i	V_i =5V			0.18	mA
Output cut-off current	$I_{O(off)}$	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	

Typical Characteristics

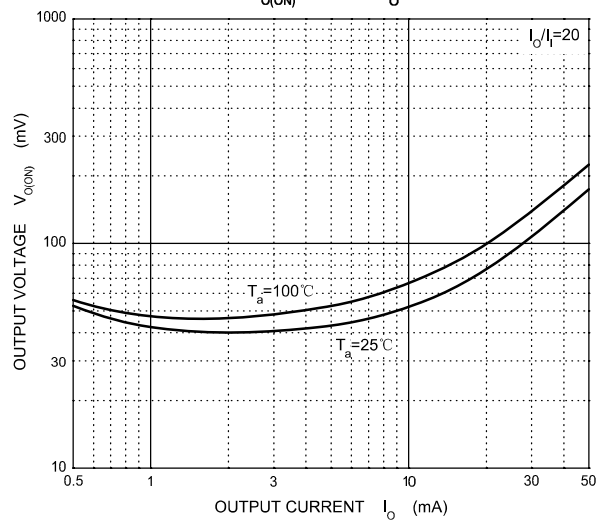
ON Characteristics



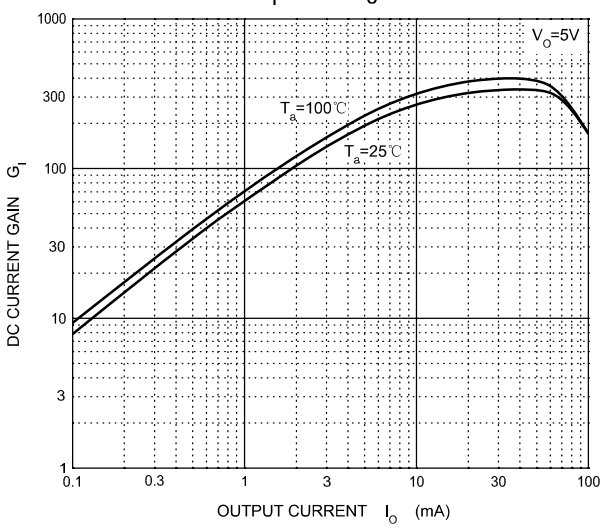
OFF Characteristics



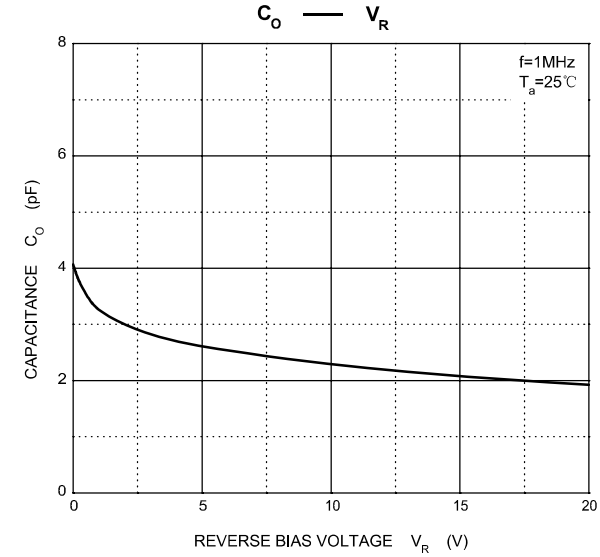
$V_{O(ON)}$ — I_O



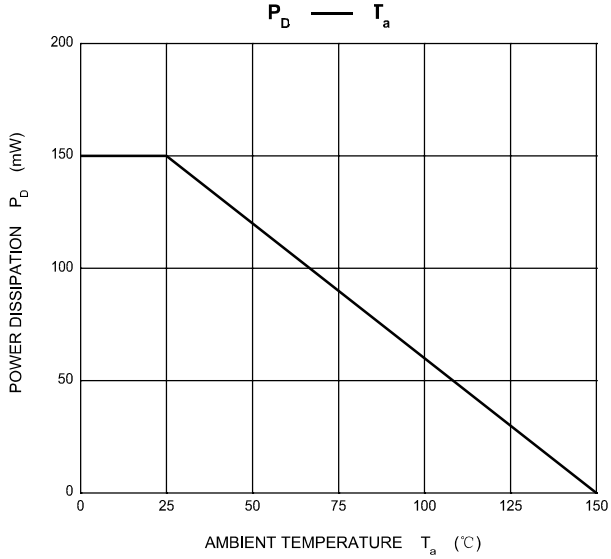
G_I — I_O



C_O — V_R



P_D — T_a

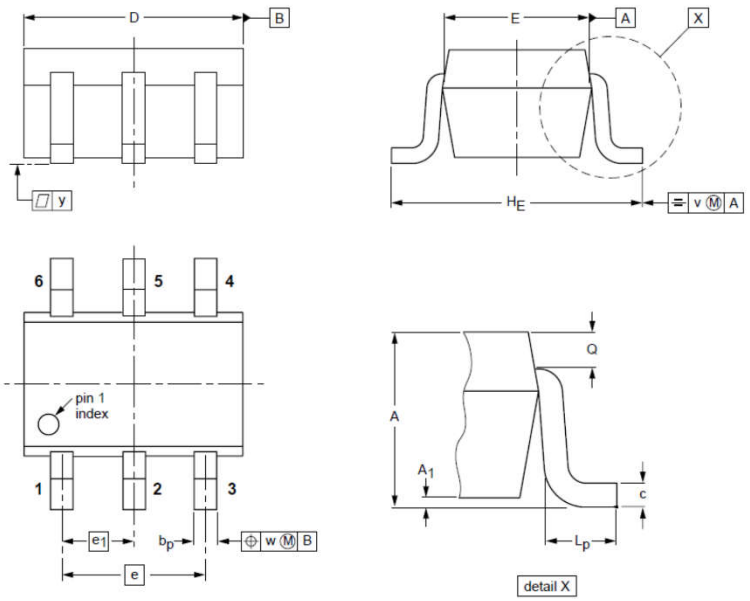


Ordering information

Package	Packing Description	Packing Quantity
SOT-363	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

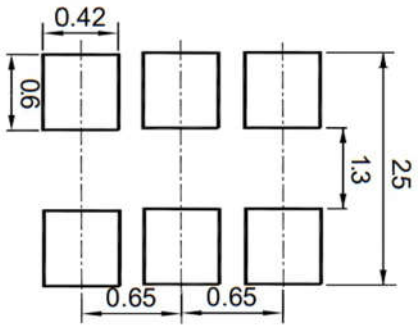
Package Dimensions

SOT-363



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	-	0.1	-	3.94
bp	0.20	0.30	7.87	11.81
c	0.10	0.25	3.94	9.84
D	1.8	2.2	70.87	86.61
E	1.15	1.35	45.28	53.15
e	1.3		51.18	
e1	0.65		25.6	
HE	2.0	2.2	78.74	86.6
Lp	0.15	0.45	5.90	17.71
Q	0.15	0.25	5.90	9.84
v	0.2		7.78	
w	0.2		7.78	
y	0.1		3.94	

The recommended mounting pad size



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