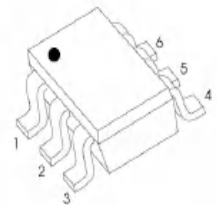
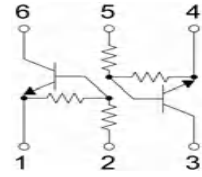




### UMH2N Dual Digital Transistors (NPN+NPN)

#### FEATURES

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



Marking: H2

SOT-363

#### Absolute maximum ratings ( $T_a=25^{\circ}\text{C}$ )

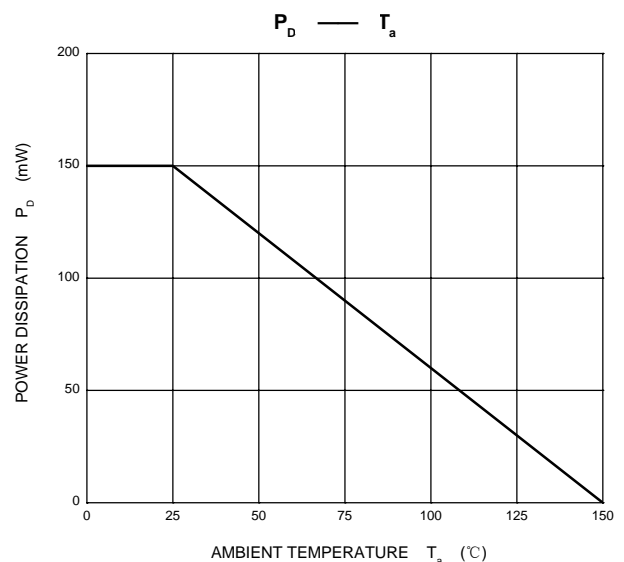
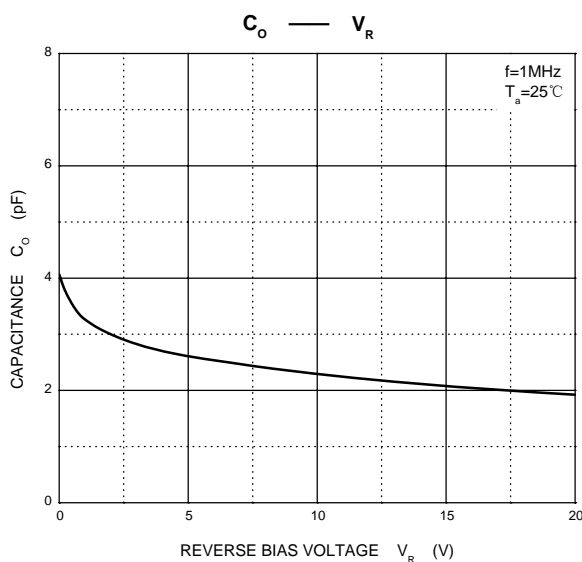
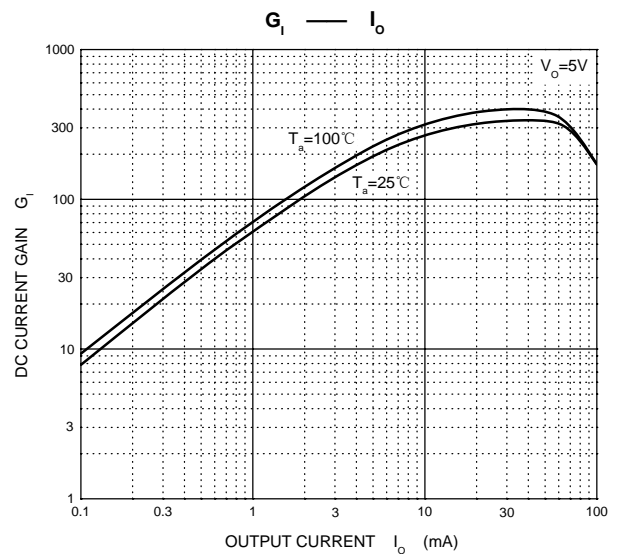
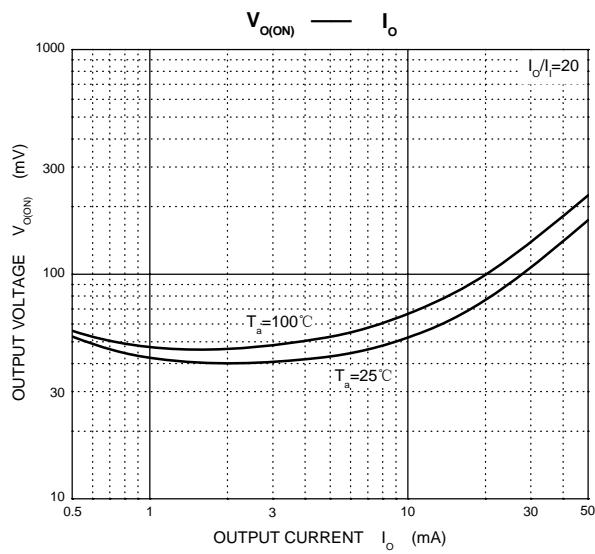
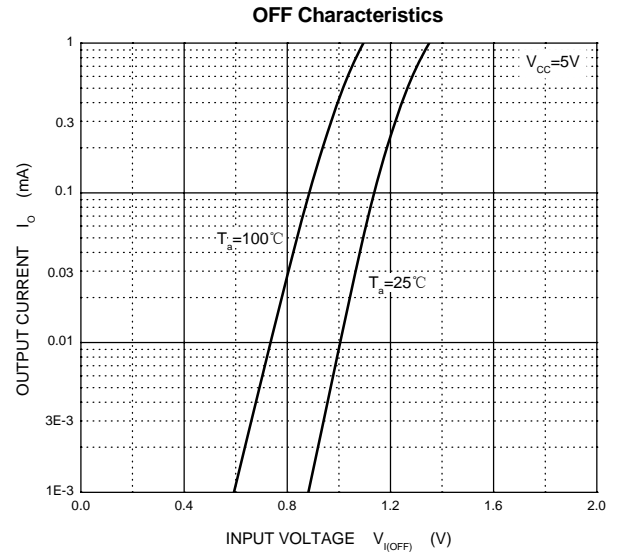
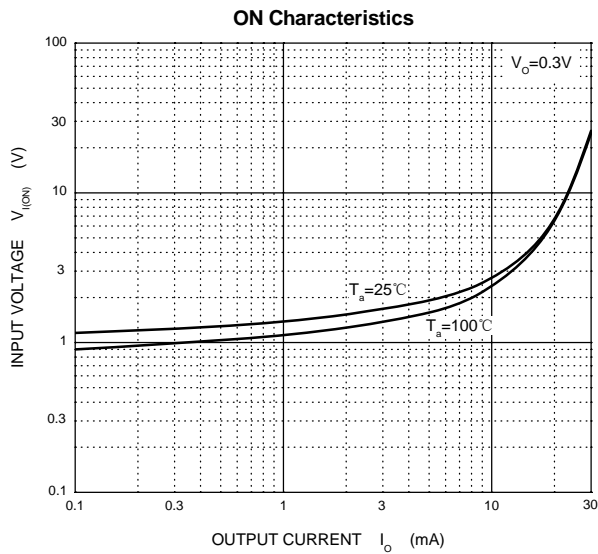
Symbol	Parameter	Value	Units
$V_{CC}$	Supply Voltage	50	V
$V_i$	Input voltage	-10 to +40	V
$I_{C(MAX)}$	Output current	100	mA
$P_D$	Power dissipation	150	mW
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

#### Electrical Characteristics ( $T_a=25^{\circ}\text{C}$ )

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	$V_{i(off)}$	$V_{CC}=5V, I_O=100\mu A$	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	$\mu A$
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	K $\Omega$
Resistance ratio	$R_2/R_1$		0.8		1.2	

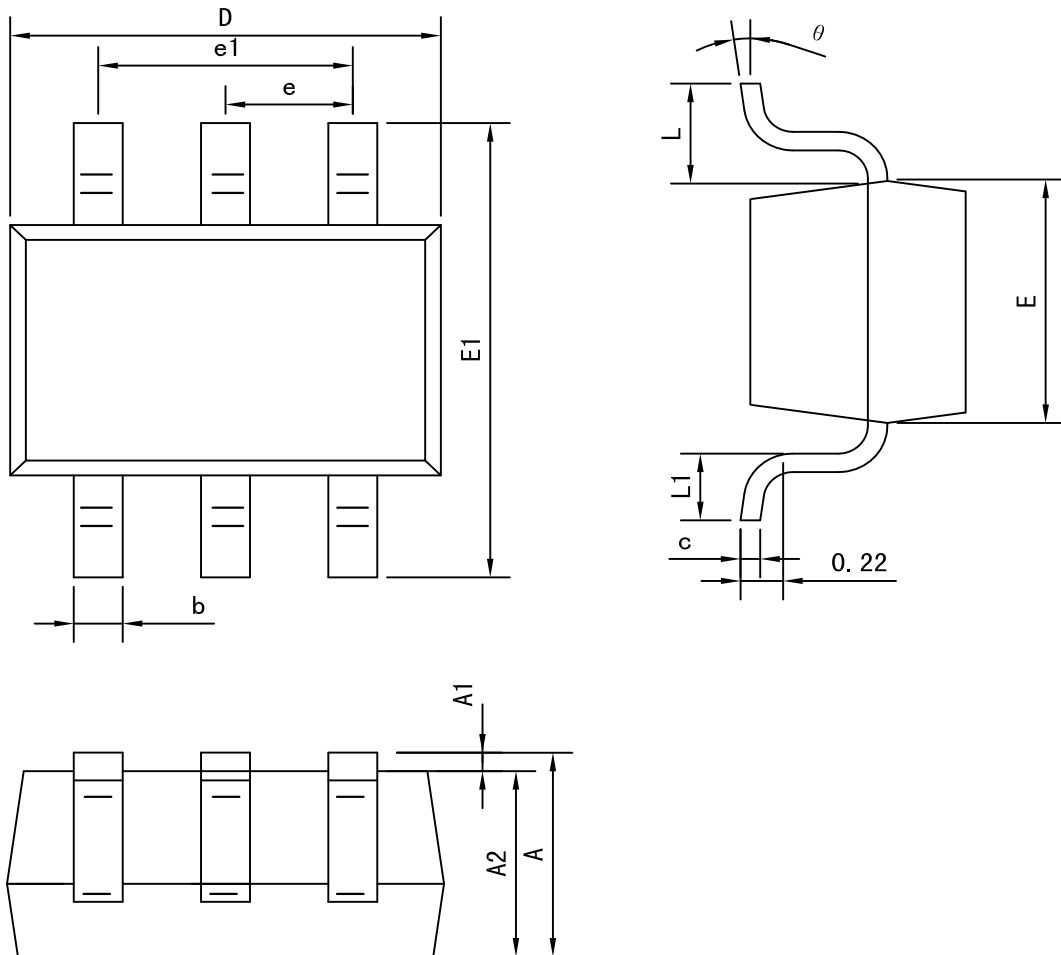


## Typical Characteristics





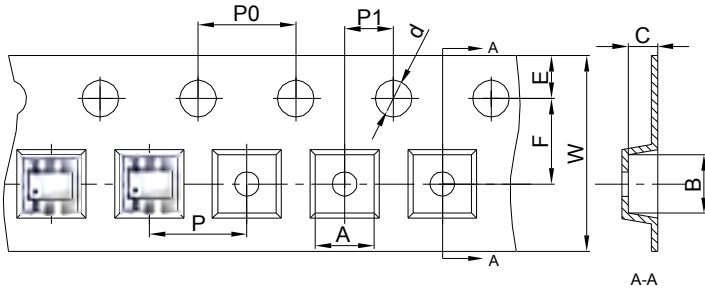
**SOT-363 Package outline dimensions**



Symbol	Dimension in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
$\theta$	0°	8°



### SOT-363 Embossed Carrier Tape



**Packaging Description:**  
 SOT-363 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

### SOT-363 Tape Leader and Trailer

