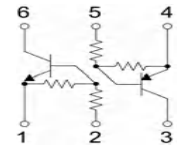




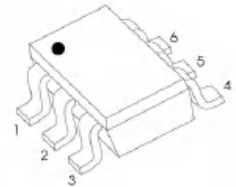
UMD9N Dual Digital Transistors (NPN+PNP)



FEATURES

- DTA114Y and DTC114Y transistors are built-in a package

MARKING:D9



SOT-363

Absolute maximum ratings(Ta=25°C)

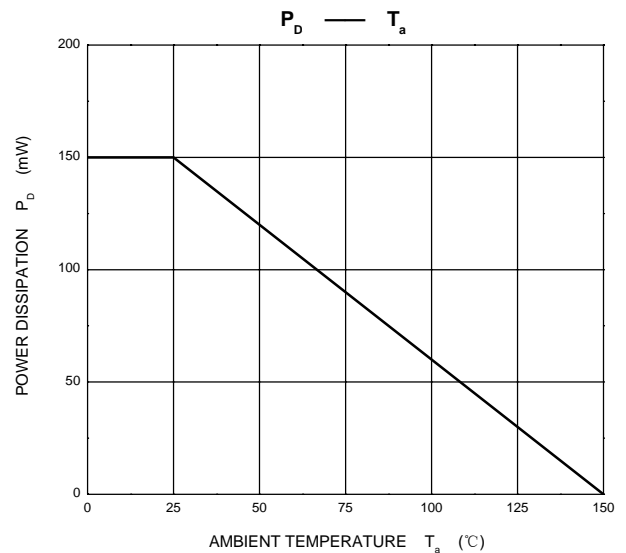
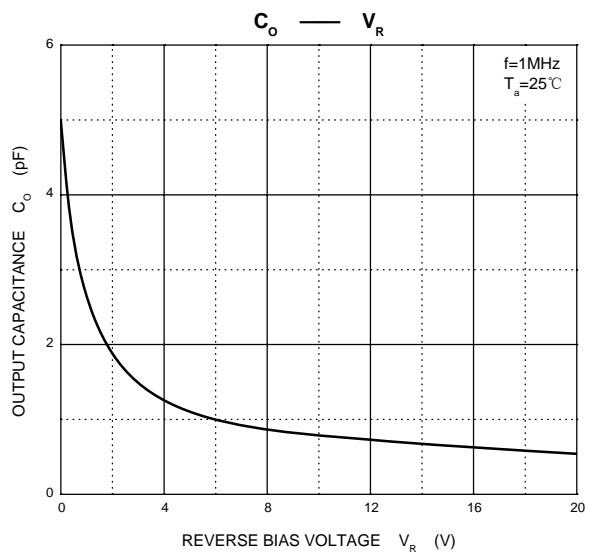
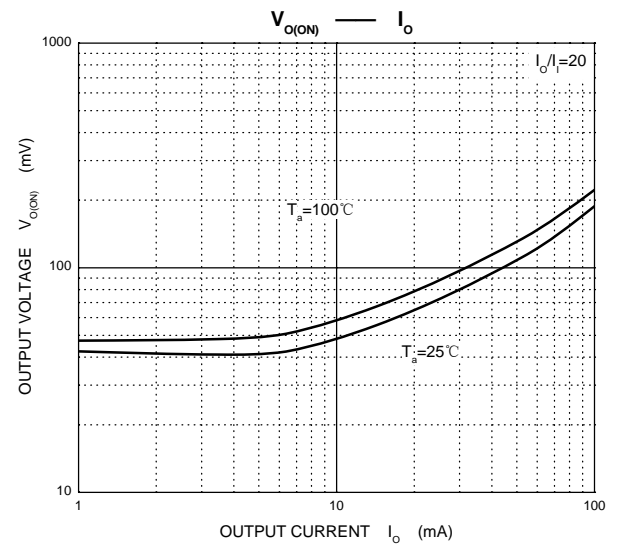
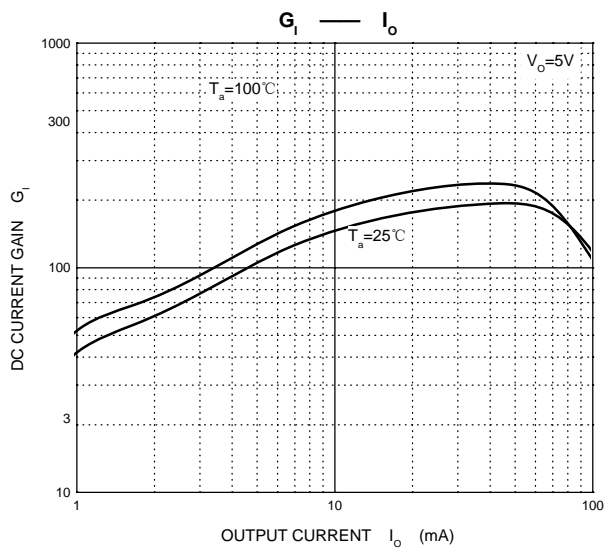
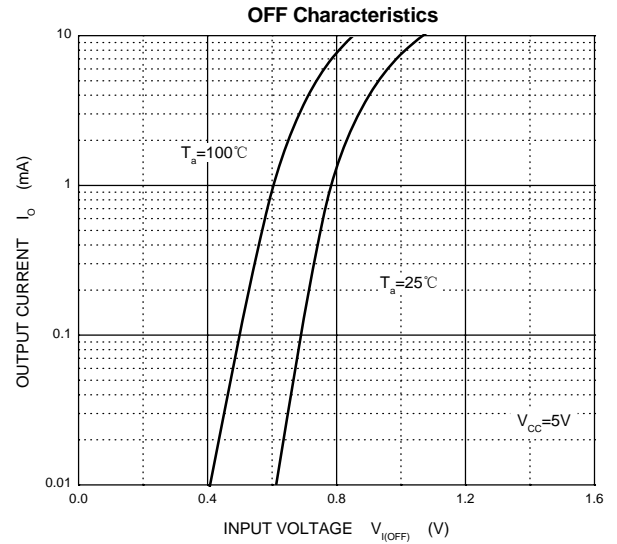
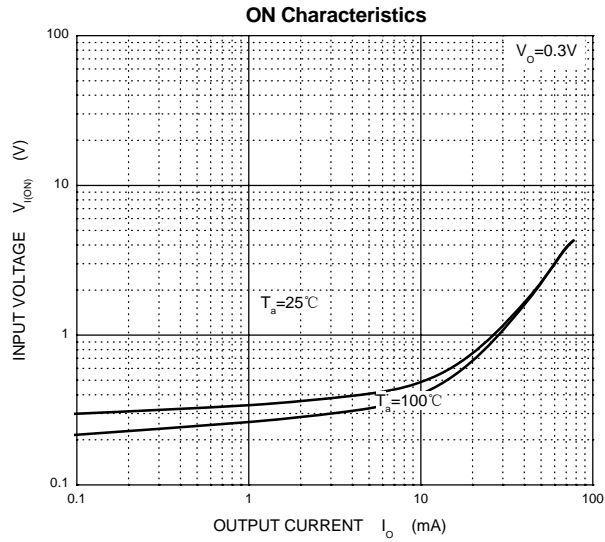
| Parameter | Symbol | Limits | Unit |
|--|----------------|------------|------|
| Supply voltage | V_{CC} | 50 | V |
| Input voltage | V_{IN} | -6~40 | V |
| Output current | I_o | 70 | mA |
| | $I_{C(MAX)}$ | 100 | |
| Power dissipation | P_d | 150(TOTAL) | mW |
| Operation Junction and Storage Temperature Range | T_J, T_{stg} | -55~+150 | °C |

Electrical characteristics (Ta=25°C)

| Parameter | Symbol | Min. | Typ | Max. | Unit | Conditions |
|----------------------|--------------|------|-----|------|------------|----------------------------------|
| Input voltage | $V_{I(off)}$ | 0.3 | | | V | $V_{CC}=5V, I_o=100\mu A$ |
| | $V_{I(on)}$ | | | 1.4 | | $V_o=0.3V, I_o=1mA$ |
| Output voltage | $V_{O(on)}$ | | | 0.3 | V | $I_o/I_i=5mA/0.25mA$ |
| Input current | I_i | | | 0.88 | mA | $V_i=5V$ |
| Output current | $I_{O(off)}$ | | | 0.5 | μA | $V_{CC}=50V, V_i=0$ |
| DC current gain | G_I | 68 | | | | $V_o=5V, I_o=5mA$ |
| Input resistance | R_1 | 7 | 10 | 13 | K Ω | |
| Resistance ratio | R_2/R_1 | 3.7 | 4.7 | 5.7 | | |
| Transition frequency | f_T | | 250 | | MHz | $V_{CE}=10V, I_E=-5mA, f=100MHz$ |

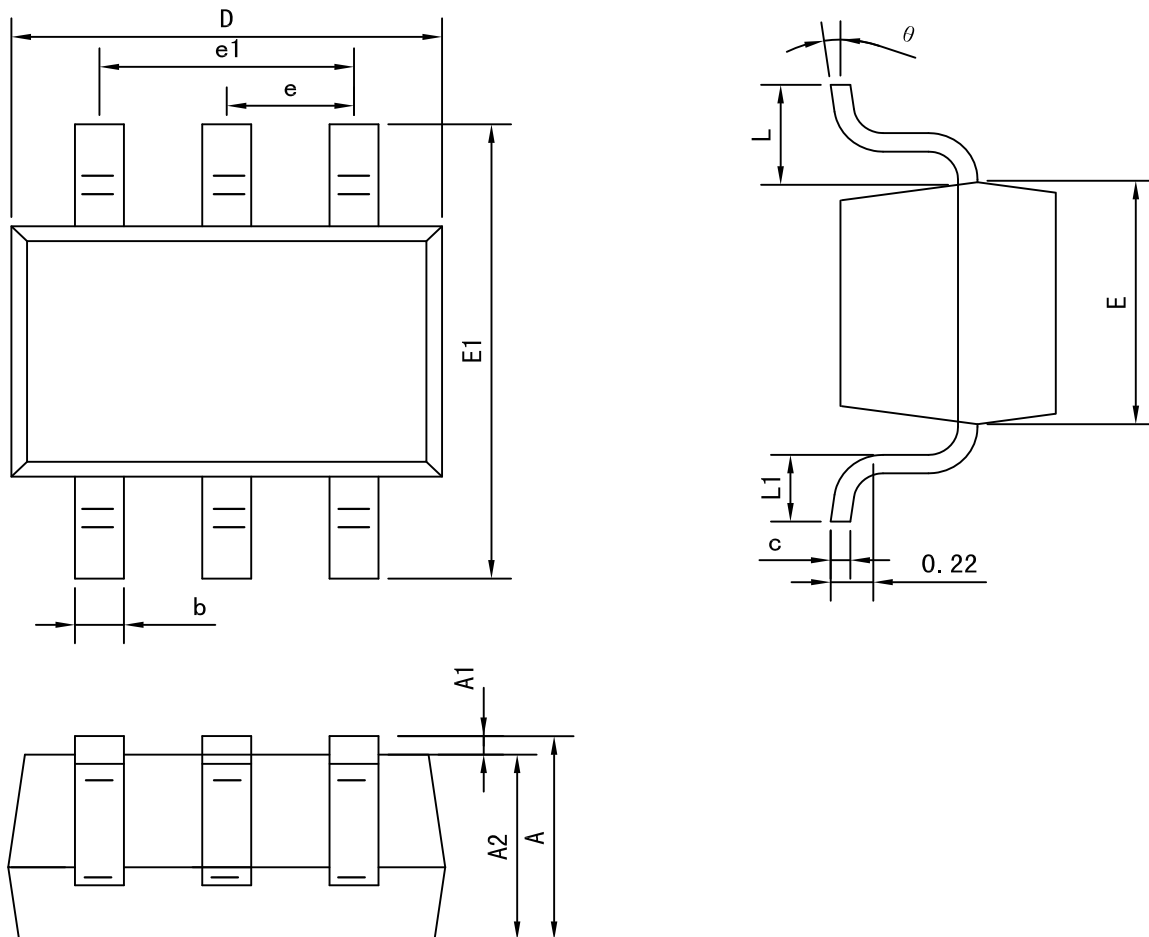


Typical Characteristics





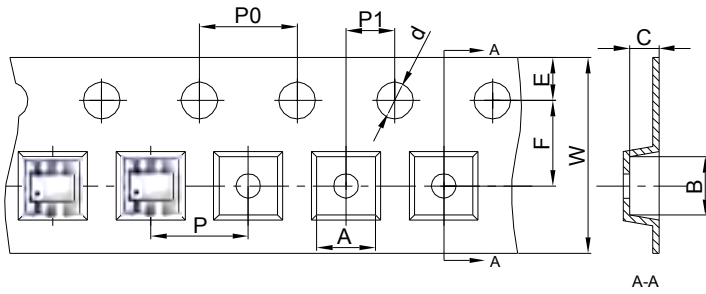
SOT-363 Package outline dimensions



| 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 |
| θ | 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

