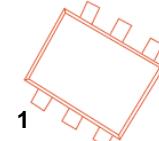


Dual Digital transistors (built-in resistors)

FEATURES

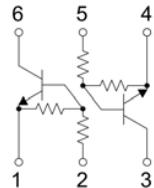
- Two DTC504 chip in a package
- Mounting possible with SOT-563 automatic mounting machines
- Transistor elements are independent, eliminating interference
- Mounting cost and area be cut in half

SOT-563



Marking: H2

Equivalent circuit



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

Parameter	Symbol	Limits		Unit
Supply voltage	V_{CC}	50		V
Input voltage	V_{IN}	-10~40		V
Output current	I_O	100		mA
	$I_{C(MAX)}$	100		
Power dissipation	P_d	150		mW
Junction temperature	T_j	150		°C
Storage temperature	T_{STG}	-55~150		°C

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

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	0.5			V	$V_{CC}=5\text{V}$, $I_O=100\mu\text{A}$
	$V_{I(on)}$			3		$V_O=0.3\text{V}$, $I_O=2\text{mA}$
Output voltage	$V_{O(on)}$		0.1	0.3	V	$I_O/I_I=10\text{mA}/0.5\text{mA}$
Input current	I_I			0.18	mA	$V_I=5\text{V}$
Output current	$I_{O(off)}$			0.5	μA	$V_{CC}=50\text{V}$, $V_I=0$
DC current gain	G_I	68				$V_O=5\text{V}$, $I_O=5\text{mA}$
Input resistance	R_I	32.9	47	61.1	KΩ	-
Resistance ratio	R_2/R_1	0.8	1	1.2		-
Transition frequency	f_T		250		MHz	$V_{CE}=10\text{V}$, $I_E=5\text{mA}$, $f=100\text{MHz}$

Typical Characteristics

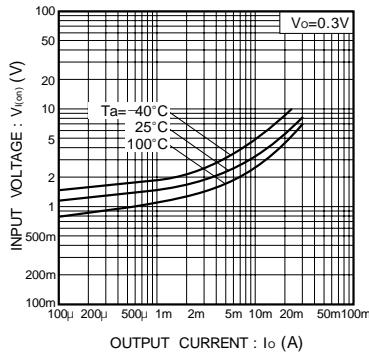


Fig.1 Input voltage vs. output current
(ON characteristics)

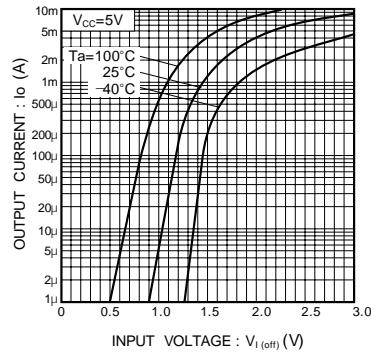


Fig.2 Output current vs. input voltage
(OFF characteristics)

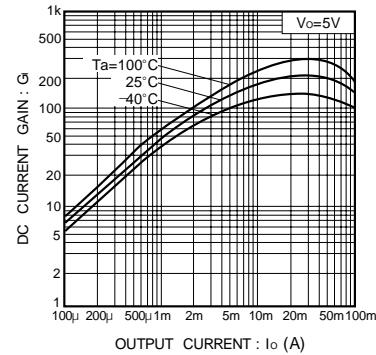


Fig.3 DC current gain vs. output current

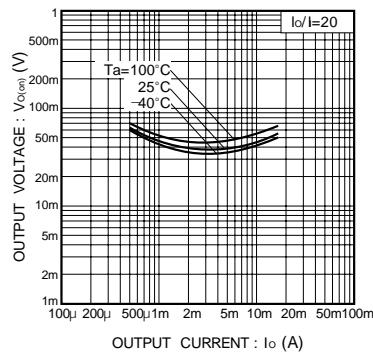
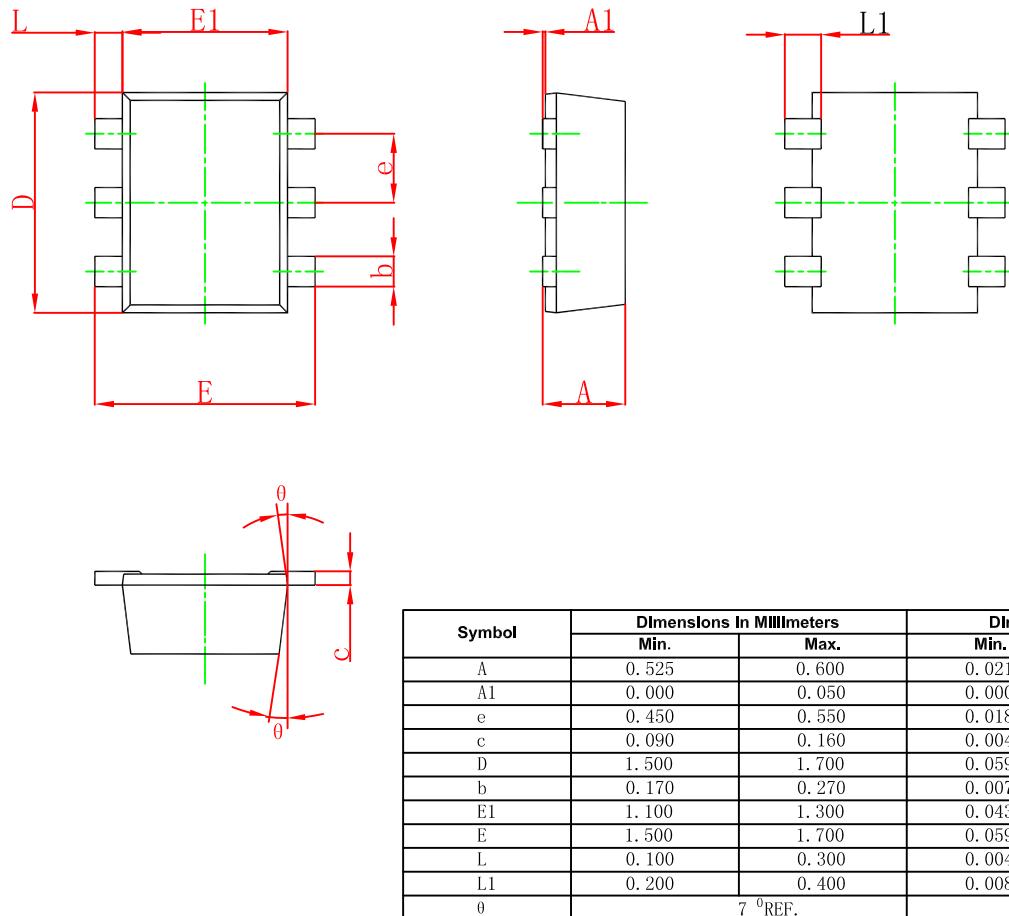
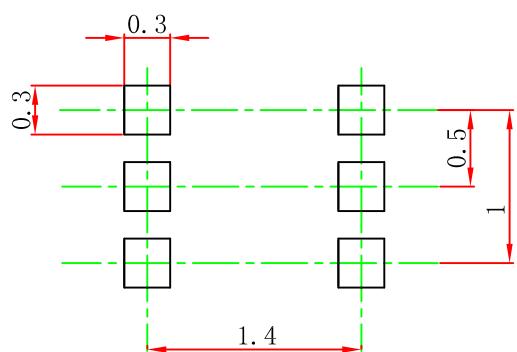


Fig.4 Output voltage vs. output current

SOT- 563 Package Outline Dimensions



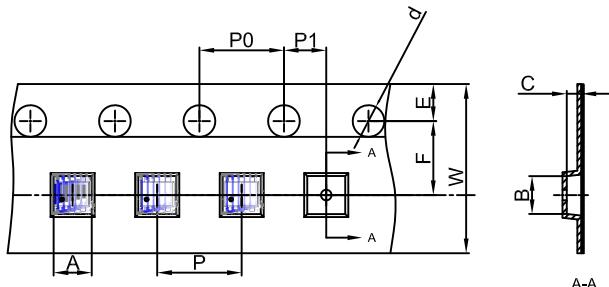
SOT- 563 Suggested Pad Layout



Note:
 1. Controlling dimension:in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.

SOT-563 Tape and Reel

SOT-563 Embossed Carrier Tape

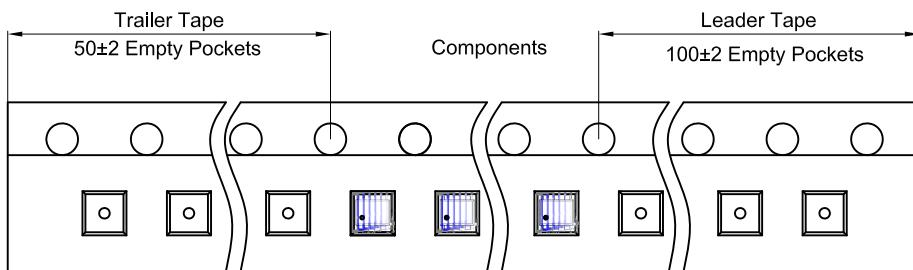


Packaging Description:

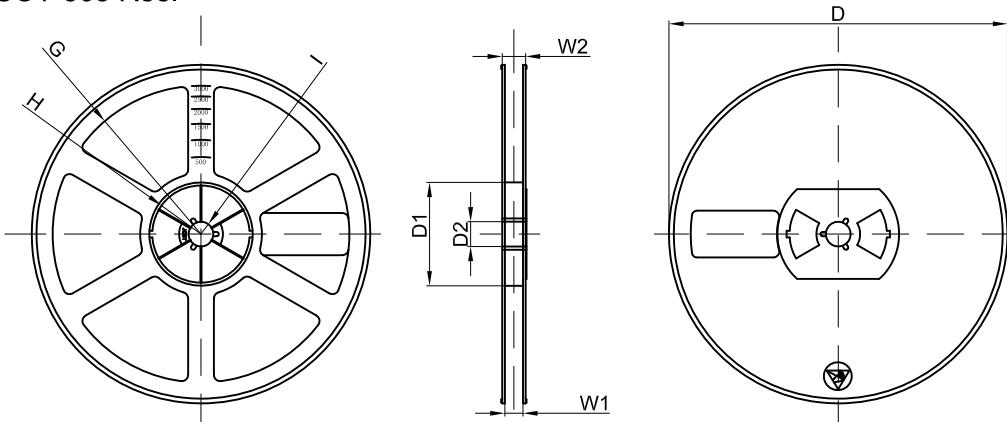
SOT-563 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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-563	1.78	1.78	0.69	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-563 Tape Leader and Trailer



SOT-563 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	