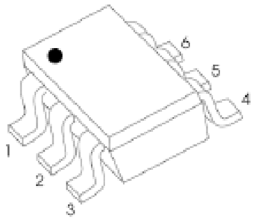
Dual Digital Transistors (NPN+PNP)

FEATURES

- Transistor elements are independent, eliminating interference.
- Mounting cost and area can be cut in half.
- **MARKING: D3**



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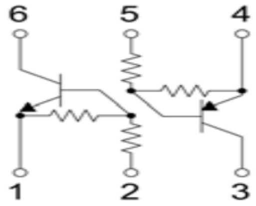


Absolute maximum ratings(Ta=25℃)

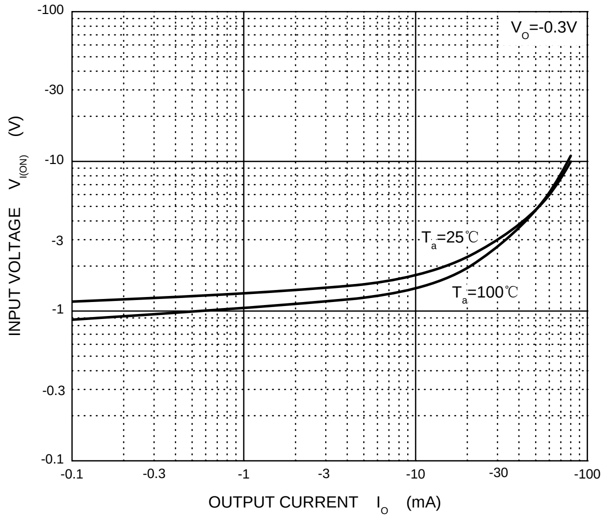
Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	50	V
Input voltage	V_{IN}	-10~40	V
Output current	I_O	50	mA
	$I_{C(MAX)}$	100	
Power dissipation	Pd	150(TOTAL)	mW
Operation Junction and Storage Temperature Range	T_J,T_{stg}	-55~+150	℃

Electrical characteristics (Ta=25℃)

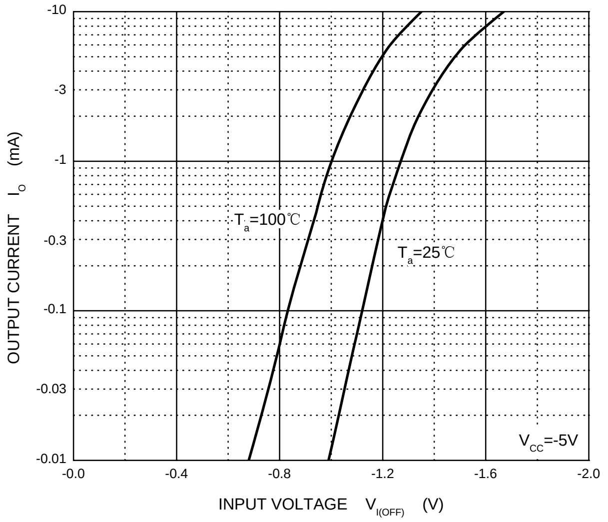
Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	0.5			V	V_{CC}=5V,I_O=100μA
	$V_{I(on)}$			3		V_O=0.3V ,I_O=10mA
Output voltage	$V_{O(on)}$			0.3	V	I_O/I_I=10mA/0.5mA
Input current	I_I			0.88	mA	V_I=5V
Output current	$I_{O(off)}$			0.5	μA	V_{CC}=50V, V_I=0
DC current gain	G_I	30				V_O=5V,I_O=5mA
Input resistance	R_1	7	10	13	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

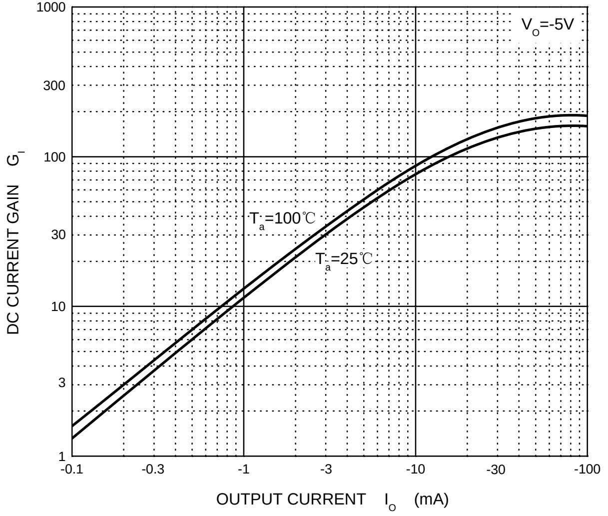
ON Characteristics



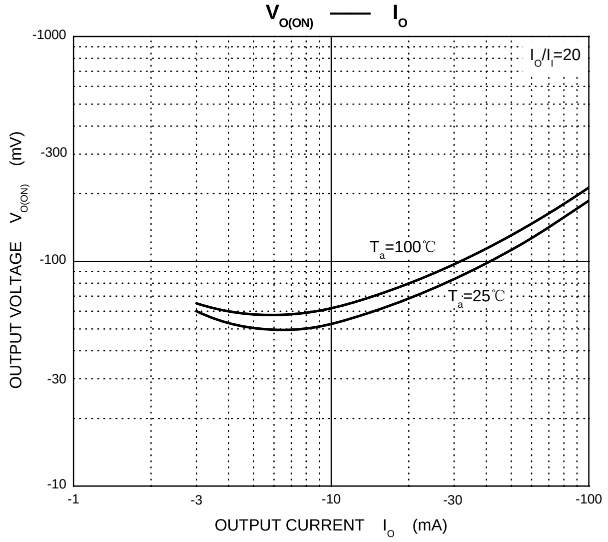
OFF Characteristics



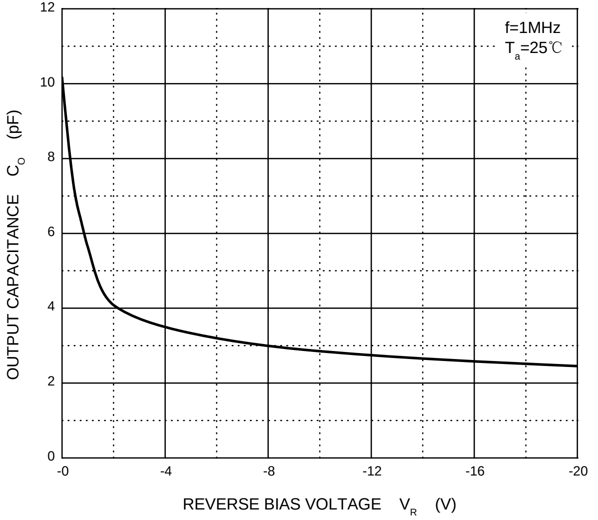
G_I —— I_O



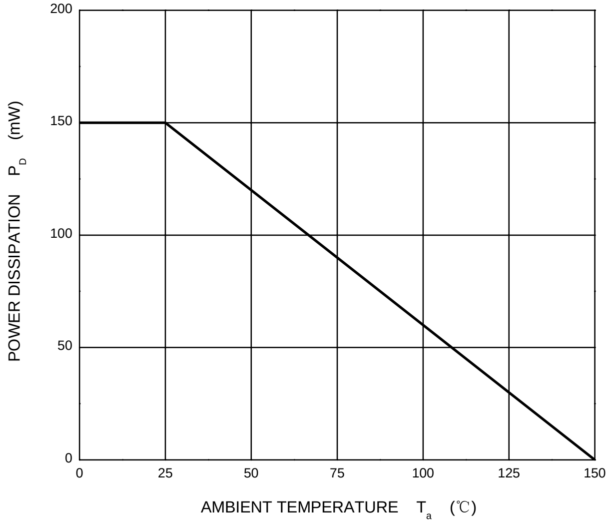
$V_{O(ON)}$ —— I_O



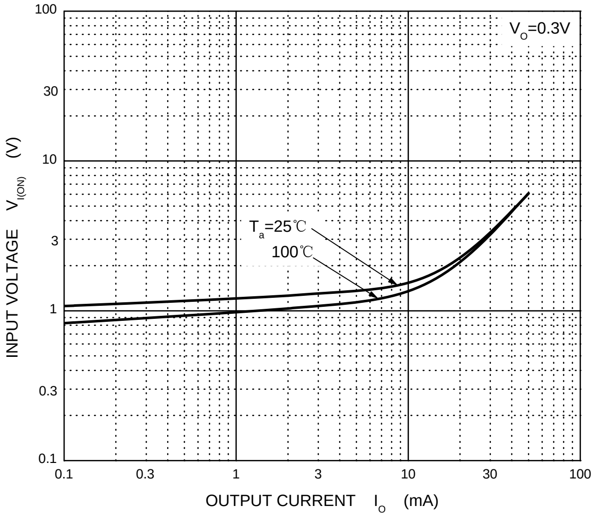
C_O —— V_R

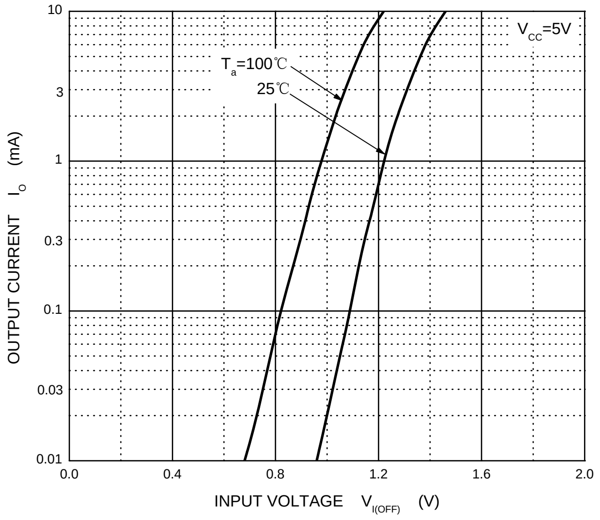


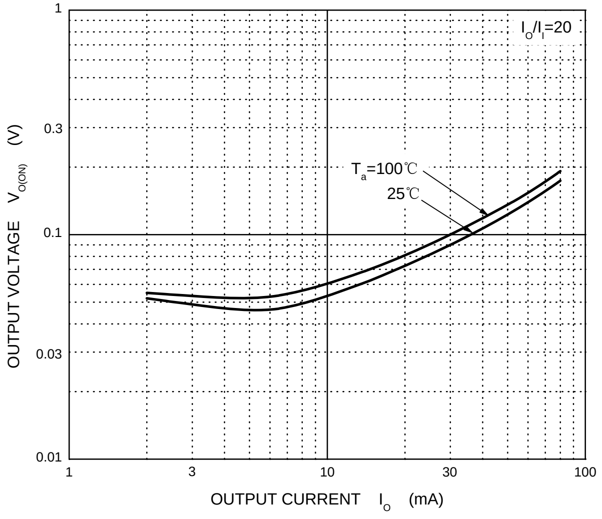
P_D —— T_a

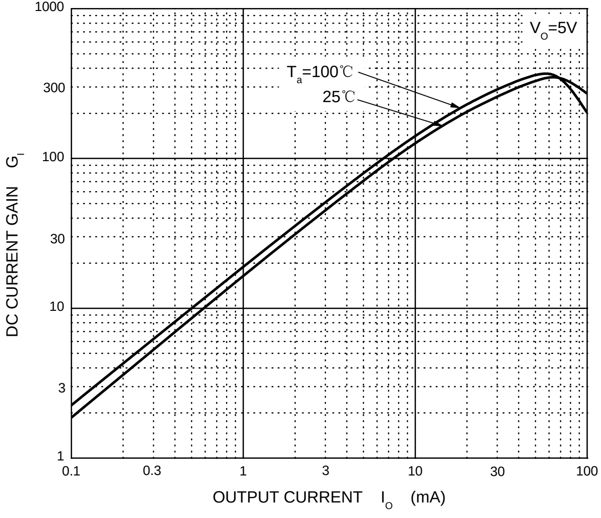


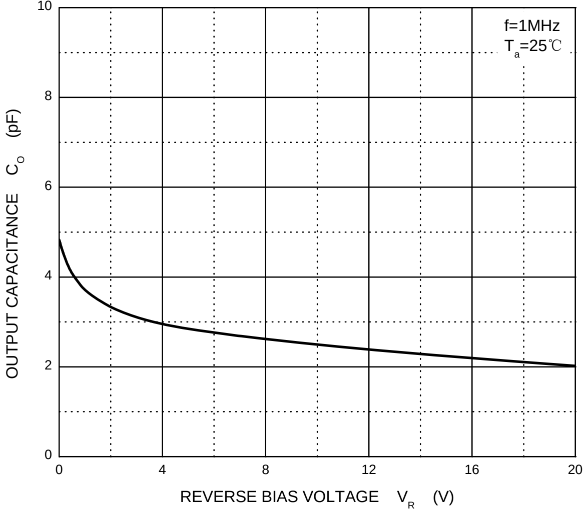
Typical Characteristics

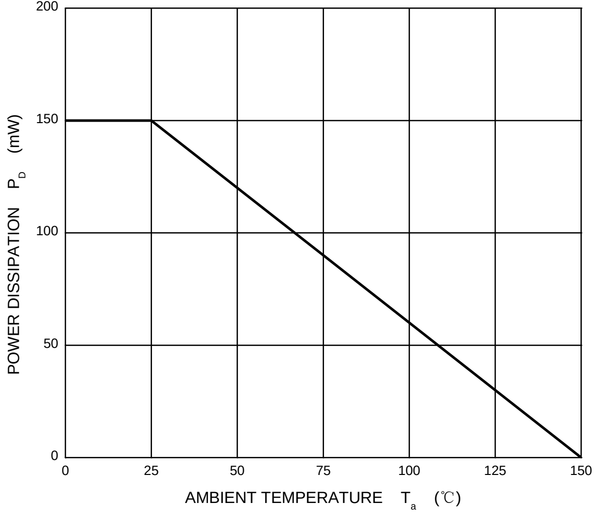

ON Characteristics


OFF Characteristics

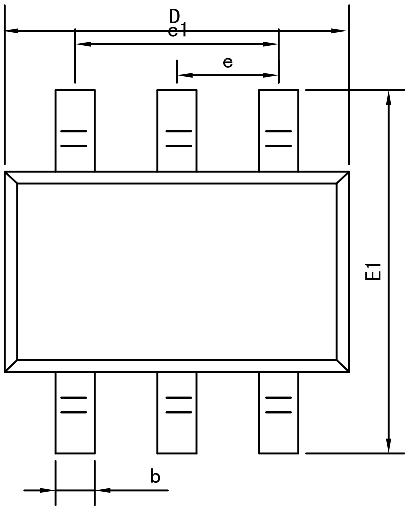

$V_{O(ON)}$ —— I_O

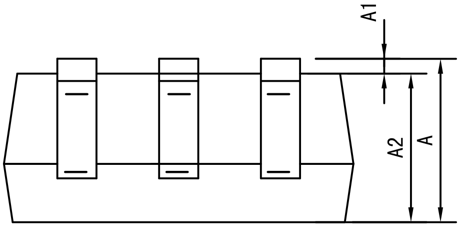

G_I —— I_O

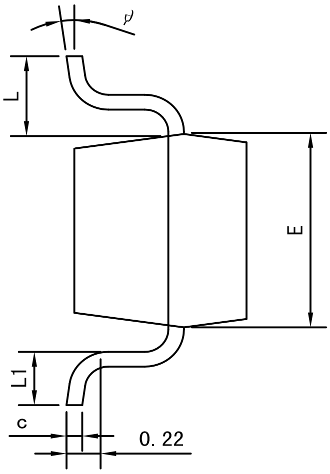

C_O —— V_R


P_D —— T_a

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°