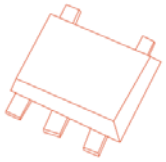
dual digital transistors (NPN+NPN)

SOT-553



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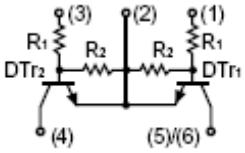
FEATURES

- Two DTC143Z chips in a package
- Mounting cost and area can be cut in half

Marking: G8

Equivalent circuit:



Absolute maximum ratings (T_a=25℃)

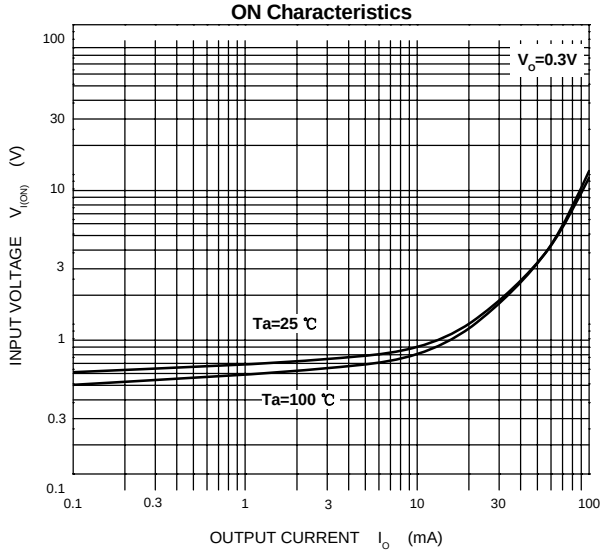
Symbol	Parameter	Value	Units
V_{CC}	Supply Voltage	50	V
V_i	Input voltage	-5~30	V
I_O	Output current	100	mA
P_D	Power dissipation	150	mW
T_J	Junction temperature	150	℃
T_{stg}	Storage temperature	-55~+150	℃

Electrical Characteristics (T_a=25℃)

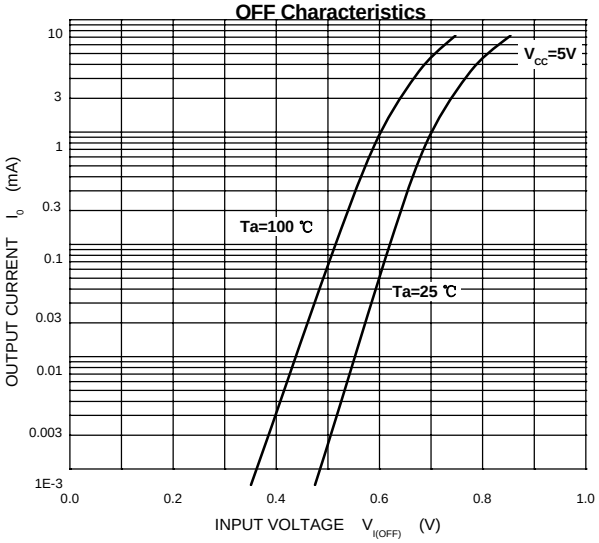
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Input turn-on voltage	$V_{i(on)}$	V_{CC}=0.3V, I_O=5mA	1.3			V
Input cut-off voltage	$V_{i(off)}$	V_{CC}=5V, I_O=100μA			0.5	V
Output voltage	$V_{O(on)}$	I_O=5mA, I_i=0.25mA			0.3	V
Input cut-off current	I_i	V_i=5V			1.8	mA
Output cut-off current	$I_{O(off)}$	V_{CC}=50V, V_i=0			0.5	μA
DC current gain	G_i	V_O=5V, I_O=10mA	80			
Transition frequency	f_T	V_{CE}=10V, I_C=5mA, f =100MHz		250		MHz
Input resistance	R_1		3.29		6.11	KΩ
Resistance ratio	R_2/R_1		8		12	

Typical Characteristics

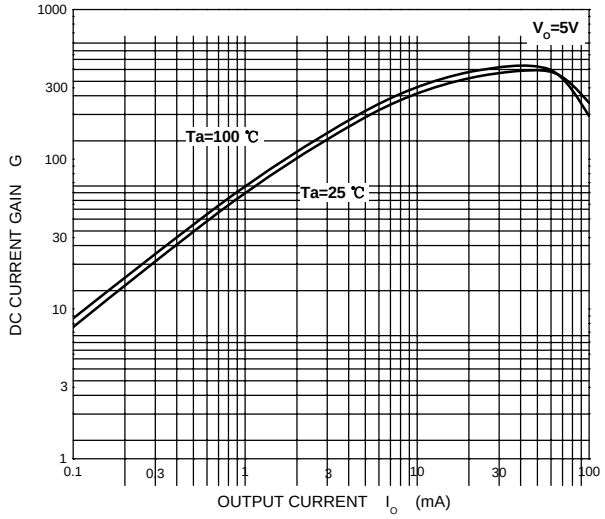
ON Characteristics



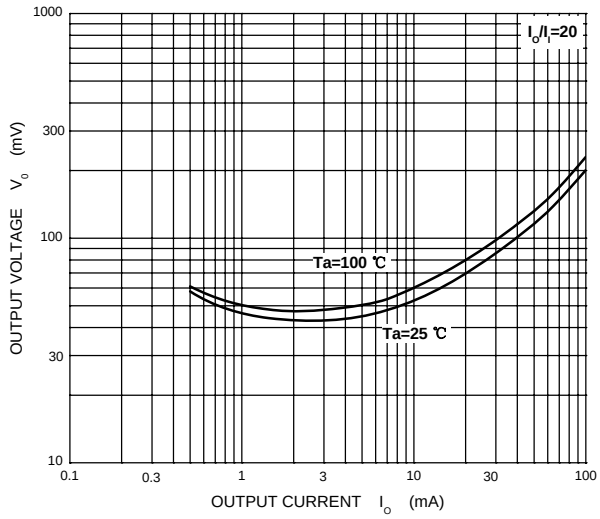
OFF Characteristics



G —— I_o



V_o —— I_o



C_o —— V_R

