

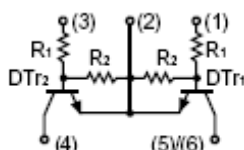
dual digital transistors (NPN+NPN)

FEATURES

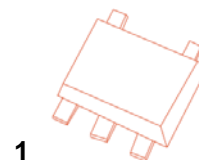
- Two DTC143Z chips in a package
- Mounting cost and area can be cut in half

Marking: G8

Equivalent circuit:



SOT-553



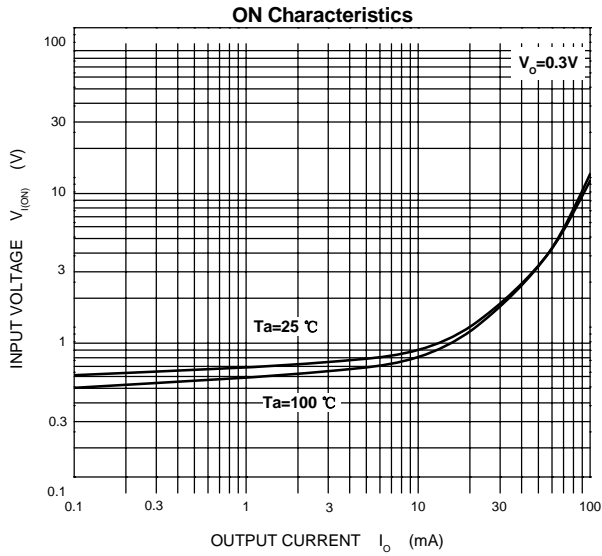
Absolute maximum ratings ($T_a=25^{\circ}\text{C}$)

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	$^{\circ}\text{C}$
T_{stg}	Storage temperature	-55~+150	$^{\circ}\text{C}$

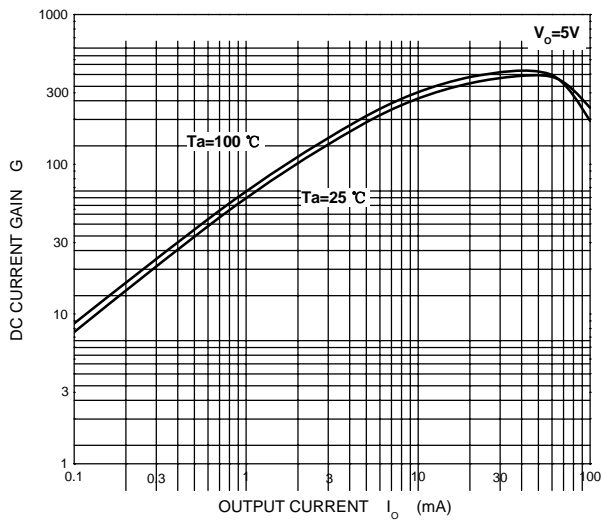
Electrical Characteristics ($T_a=25^{\circ}\text{C}$)

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

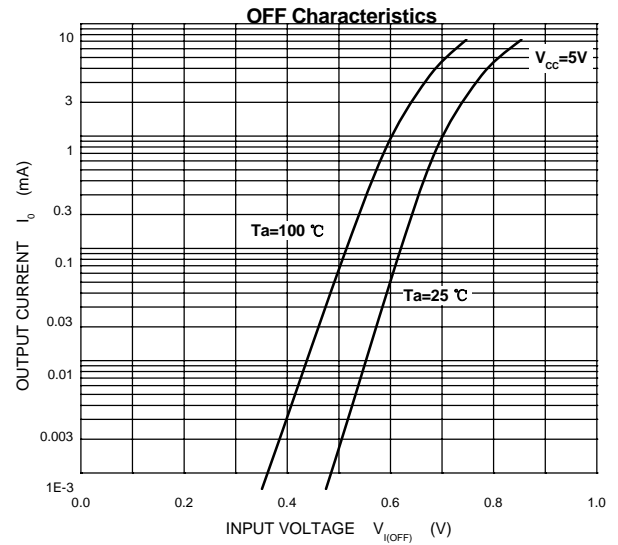
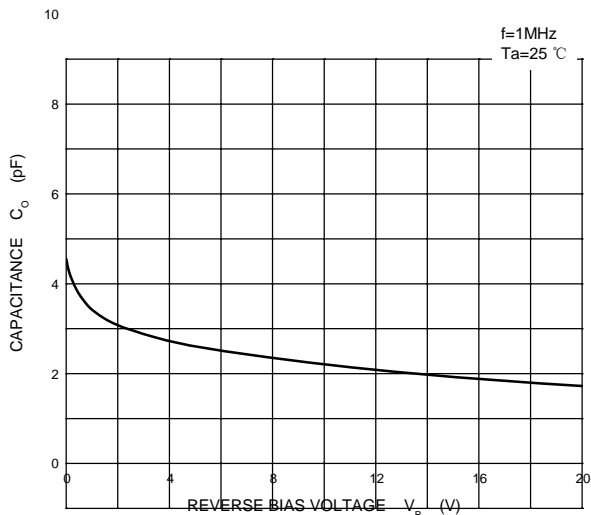
Typical Characteristics



$G - I_O$



$C_o - V_R$



$V_O - I_O$

