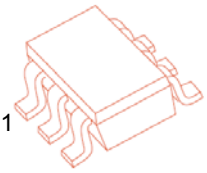
General purpose transistors (dual digital transistors)

FEATURES

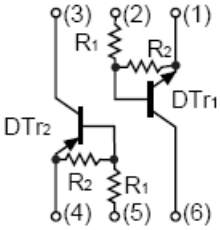
- Both the DTA143X chip and DTC144E chip in a package
- Mounting possible with SOT-363 automatic mounting machines
- Transistor elements are independent, eliminating interference
- Mounting cost and area be cut in half

SOT-363



Marking: D5

Equivalent circuit



DTr1
R1/R2=47kΩ / 47kΩ
DTr2
R1/R2=4.7kΩ / 10kΩ

DTr1

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	30	mA
	$I_{C(MAX)}$	100	
Power dissipation	Pd	150	mW
Junction temperature	T_j	150	℃
Storage temperature	Tstg	-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=2mA
Output voltage	$V_{O(on)}$			0.3	V	I_O/I_I=10mA/0.5mA
Input current	I_I			0.18	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	32.9		61.1	KΩ	
Resistance ratio	R_2/R_1	0.8	1	1.2		
Transition frequency	f_T		250		MHz	V_O=10V ,I_O=5mA,f=100MHz

DTr2

Absolute maximum ratings(Ta=25℃)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	-50	V
Input voltage	V_{IN}	-20~+7	V
Output current	I_O	-100	mA
	$I_{C(MAX)}$	-100	
Power dissipation	Pd	150	mW
Junction temperature	T_j	150	℃
Storage temperature	Tstg	-55~150	℃

Electrical characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$			-0.3	V	V_{CC}=-5V ,I_O=-100μA
	$V_{I(on)}$	-2.5				V_O=-0.3V ,I_O=-20mA
Output voltage	$V_{O(on)}$			-0.3	V	I_O/I_I=-10mA/-0.5mA
Input current	I_I			-1.8	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=-10mA
Input resistance	R_1	3.29		6.11	KΩ	
Resistance ratio	R_2/R_1	1.7		2.6		
Transition frequency	f_T		250		MHz	V_O=-10V ,I_O=-5mA,f=100MHz