

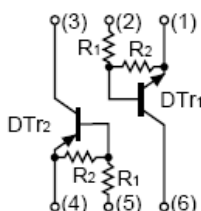
## General purpose transistors (dual transistors)

### FEATURES

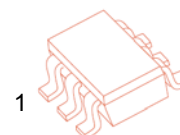
- Both the DTA143Z chip and DTC143Z chip in a package
- Mounting possible with SOT-363 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area be cut in half.

Marking: D22

Equivalent circuit



SOT-363



DTr1 DTC143Z

Absolute maximum ratings(Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	$V_{CC}$	50	V
Input voltage	$V_{IN}$	-5~+30	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 (Ta=25°C)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$			0.5	V	$V_{CC}=5V, I_O=100\mu A$
	$V_{I(on)}$	1.3				$V_O=0.3V, I_O=5mA$
Output voltage	$V_{O(on)}$		0.1	0.3	V	$I_O/I_I=5mA/0.25mA$
Input current	$I_I$			1.8	mA	$V_I=5V$
Output current	$I_{O(off)}$			0.5	$\mu A$	$V_{CC}=50V, V_I=0$
DC current gain	$G_I$	80				$V_O=5V, I_O=10mA$
Input resistance	$R_1$	3.29	4.7	6.11	K $\Omega$	-
Resistance ratio	$R_2/R_1$	8	10	12		-
Transition frequency	$f_T$		250		MHz	$V_{CE}=10V, I_E=-5mA, f=100MHz$

**DTr2 DTA143Z**
**Absolute maximum ratings(Ta=25°C)**

Parameter	Symbol	Limits	Unit
Supply voltage	$V_{CC}$	-50	V
Input voltage	$V_{IN}$	-30~+5	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 (Ta=25°C)**

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$			-0.5	V	$V_{CC}=-5V, I_o=-100\mu A$
	$V_{I(on)}$	-1.3				$V_o=-0.3V, I_o=-5mA$
Output voltage	$V_{O(on)}$		-0.1	-0.3	V	$I_o/I_i=-5mA/-0.25mA$
Input current	$I_i$			-1.8	mA	$V_i=-5V$
Output current	$I_{O(off)}$			-0.5	$\mu A$	$V_{CC}=-50V, V_i=0$
DC current gain	$G_i$	80				$V_o=-5V, I_o=-10mA$
Input resistance	$R_1$	3.29	4.7	6.11	K $\Omega$	-
Resistance ratio	$R_2/R_1$	8	10	12		-
Transition frequency	$f_T$		250		MHz	$V_{CE}=-10V, I_E=5mA, f=100MHz$