

SOT-563 Plastic-Encapsulate Transistors

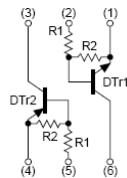
EMD22 General purpose transistors (dual transistors)

FEATURES

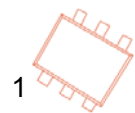
- Both the DTA143Z chip and DTC143Z chip in a package.
- Mounting possible with SOT-563 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area be cut in half.

Marking: D22

Equivalent circuit



SOT-563



DTr1 Absolute maximum ratings($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	50	V
V_{IN}	Input Voltage	-5~+30	V
I_o	Output Current	100	mA
$I_{C(MAX)}$		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 ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC}=5V, I_o=100\mu A$	0.5			V
	$V_{I(on)}$	$V_o=0.3V, I_o=5mA$			1.3	V
Output voltage	$V_{O(on)}$	$I_o=5mA, I_i=0.25mA$			0.3	V
Input current	I_i	$V_i=5V$			1.8	mA
Output current	$I_{O(off)}$	$V_{CC}=50V, V_i=0$			0.5	μA
DC current gain	G_1	$V_o=5V, I_o=10mA$	80			
Input resistance	R_1	-	3.29		6.11	K Ω
Resistance ratio	R_2/R_1		8		12	
Transition frequency	f_T	$V_o=10V, I_o=5mA, f=100MHz$		250		MHz

DTr2 Absolute maximum ratings($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	-50	V
V_{IN}	Input Voltage	-30~+5	V
I_O	Output Current	-100	mA
$I_{C(MAX)}$		-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 ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

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