

Digital transistors (built-in resistors)

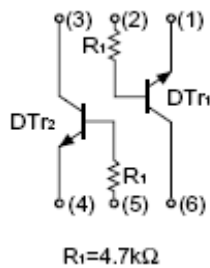
EMH3

DIGITAL TRANSISTOR (NPN+NPN)

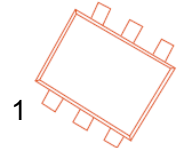
FEATURES

- Two DTC143T chips in a UMT package
- Transistor elements are independent, eliminating interference
- Mounting cost and area can be cut in half

External circuit



SOT-563



MARKING:H3

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

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{(BR)CBO}$	50	V
Collector-emitter voltage	$V_{(BR)CEO}$	50	V
Emitter-base voltage	$V_{(BR)EBO}$	5	V
Collector current	I_C	100	mA
Collector Power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	50			V	$I_C=50\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	50			V	$I_C=1\text{mA}$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5			V	$I_E=50\mu\text{A}$
Collector cut-off current	I_{CBO}			0.5	μA	$V_{CB}=50\text{V}$
Emitter cut-off current	I_{EBO}			0.5	μA	$V_{EB}=4\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$			0.3	V	$I_C=5\text{mA}, I_B=0.25\text{mA}$
DC current transfer ratio	h_{FE}	100		600		$V_{CE}=5\text{V}, I_C=1\text{mA}$
Input resistance	R_1	3.29	4.7	6.11	K Ω	
Transition frequency	f_T		250		MHz	$V_{CE}=10\text{V}, I_E=-5\text{mA}, f=100\text{MHz}$