

## Digital transistors (built-in resistors)

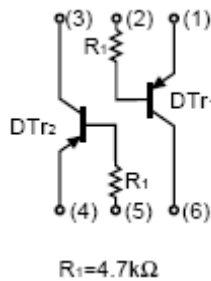
### EMB3

DIGITAL TRANSISTOR (PNP+PNP)

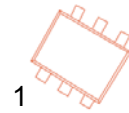
#### FEATURES

- Two DTA143T chips in a package
- Transistor elements are independent, eliminating interference
- Mounting cost and area can be cut in half

#### External circuit



SOT-563



#### MARKING: B3

#### Absolute maximum ratings(Ta=25°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	°C
Storage temperature	$T_{stg}$	-55~150	°C

#### Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-50			V	$I_C=-50\mu A$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-50			V	$I_C=-1mA$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5			V	$I_E=-50\mu A$
Collector cut-off current	$I_{CBO}$			-0.5	$\mu A$	$V_{CB}=-50V$
Emitter cut-off current	$I_{EBO}$			-0.5	$\mu A$	$V_{EB}=-4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$			-0.3	V	$I_C=-5mA, I_B=-2.5mA$
DC current transfer ratio	$h_{FE}$	100		600		$V_{CE}=-5V, I_C=-1mA$
Input resistance	$R_1$	3.29	4.7	6.11	$\text{K}\Omega$	
Transition frequency	$f_T$		250		MHz	$V_{CE}=10V, I_E=-5mA, f=100MHz$