

# SOT-563 Plastic-Encapsulate Transistors

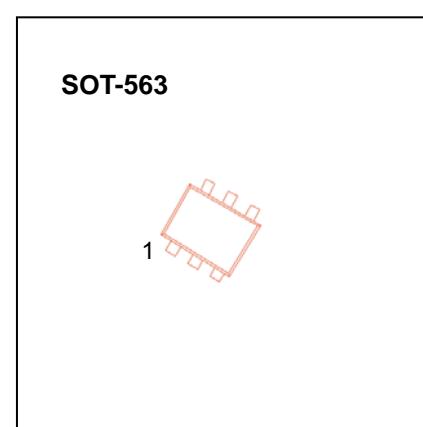
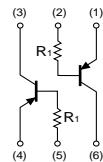
**EMB4** General purpose transistors (dual digital transistors)

## FEATURES

- Two DTA114T chips in a package

Marking: B4

## Equivalent circuit



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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-50	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_c$	Collector Current	-100	mA
$P_c$	Collector Power Dissipation	150	mW
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55-150	°C

## ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-50\mu\text{A}, I_E=0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-50\text{V}, I_E=0$			-0.5	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-4\text{V}, I_C=0$			-0.5	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	100		600	
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.3	V
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_C=-5\text{mA}, f=100\text{MHz}$		250		MHz
Input resistance	$R_1$	-	7		13	$\Omega$