

## SOT-563 Plastic-Encapsulate Transistors

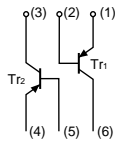
**EMT1** General purpose transistors (dual digital transistors)

### FEATURES

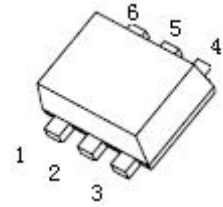
- Two 2SA1037AK chips in a package
- Mounting possible with SOT-563 automatic mounting machines
- Transistor elements are independent, eliminating interference

Marking: T1

Equivalent circuit



SOT-563



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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current	-150	mA
$P_C$	Collector 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
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-50\mu\text{A}$ , $I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$ , $I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu\text{A}$ , $I_C=0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-60\text{V}$ , $I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-7\text{V}$ , $I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=-6\text{V}$ , $I_C=-1\text{mA}$	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50\text{mA}$ , $I_B=-5\text{mA}$			-0.5	V
Transition frequency	$f_T$	$V_{CE}=-12\text{V}$ , $I_C=-2\text{mA}$ , $f=100\text{MHz}$		140		MHz
Output capacitance	$C_{ob}$	$V_{CB}=-12\text{V}$ , $I_E=0$ , $f=1\text{MHz}$			5	pF

