

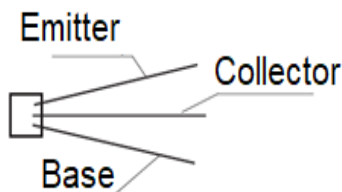
### 2T370 low power PNP transistor

**Features:**

Typical  $f_T = 1,5 \text{ GHz}$  (2T370A);  $1,7 \text{ GHz}$  (2T370B)  
 Maximum power  $P_{Cmax} 15 \text{ mW}$  (2T370A, 2T370B in die);  $30 \text{ mW}$  (2T370A,B in package)  
 Maximum  $U_{CEmax} = 15V$

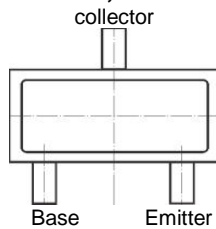
Silicon epitaxial PNP bipolar transistors 2T370A and 2T370B are intended to use in general purpose high frequency applications, industrial automation. Transistors 2T370A and 2T370B with suffix "-1" – are open dies packaged in intermediate package TC-1, with suffix "9" - packaged in plastic KT-47 package

**Pinout**



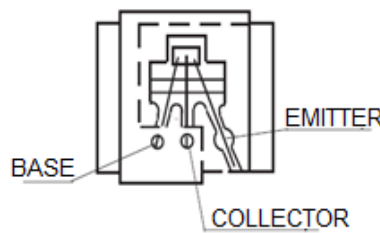
**2T370A-1, 2T370B-1**

**2T370A9, 2T370B9**

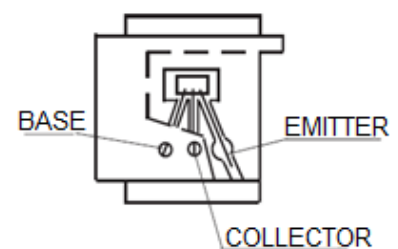


**KT-47**

**Packaging**



**TC1**



**TC1B**

**Electrical parameters  $T = (25 \pm 10) \text{ }^\circ\text{C}$**

Parameter	Parameter name	2T370A		2T370B	
		min	max	min	max
Reverse collector current ( $U_{CB} = 15 \text{ V}$ ), $\mu\text{A}$	$I_{CBO}$		0,5		0,5
Reverse emitter current, $\mu\text{A}$ ( $U_{BE} = 4 \text{ V}$ ), $\mu\text{A}$	$I_{EBO}$		0,5		0,5
Static current transfer ( $U_{CB} = 5 \text{ V}$ , $I_E = 3 \text{ mA}$ , $t_{imp} < 2 \text{ ms}$ )	$h_{21\Omega}$	20	70	40	120
High frequency current transfer ( $U_{CB} = 5 \text{ V}$ , $I_E = 3 \text{ mA}$ , $f = 100 \text{ MHz}$ )	$ h_{21\Omega} $	10		12	
Collector-emitter saturation, V ( $I_C = 10 \text{ mA}$ , $I_B = 1 \text{ mA}$ )	$U_{CEsat}$		0,35		0,35
Base-emitter saturation ( $I_C = 10 \text{ mA}$ , $I_B = 1 \text{ mA}$ ), V	$U_{BEsat}$		1,1		1,1
Feedback loop time constant at high frequency ( $U_{CB} = 5 \text{ V}$ , $I_E = 3 \text{ mA}$ , $f = 30 \text{ MHz}$ ), psec	$\tau_K$		50		75
Collector capacitance ( $U_{CB} = 5 \text{ V}$ , $f = 10 \text{ MHz}$ ), pF	$C_C$		2		2
Emitter capacitance ( $U_{EB} = 0 \text{ V}$ , $f = 10 \text{ MHz}$ ), pF	$C_E$		2		2

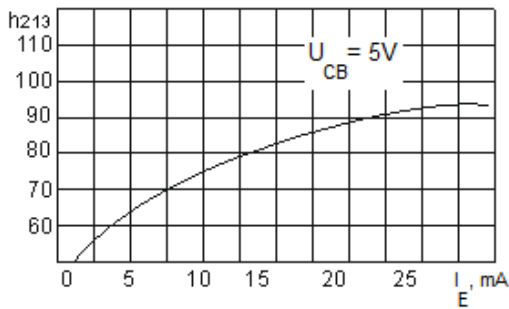


Maximum electrical parameters

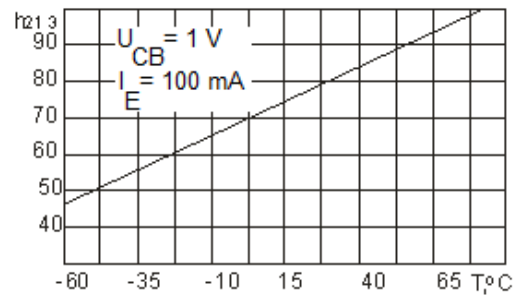
Parameter	Parameter name	2T370A, 2T370A9,	2T370B, 2T370B9,	Note
Maximum collector – base voltage , V	$U_{CBmax}$	15	15	
Maximum collector-emitter voltage , V $R_{BE} \leq 1 \text{ k}\Omega$ $R_{BE} \leq 10 \text{ k}\Omega$	$U_{CEmax}$	15 10	12 10	
Maximum emitter-base voltage , V	$U_{BEmax}$	4	4	
Maximum collector current , mA $T \leq +50^\circ\text{C}$ $T = +85^\circ\text{C}$	$I_{Cmax}$	15 10	15 10	1
Impulse collector current $t_{imp} \leq 1 \text{ usec}$ , Q $\geq 10$ , mA	$I_{Cimpmax}$	30	30	
Dissipated collector power , mW $T \leq +50^\circ\text{C}$ ( for 2T370A9,B9) $T = +85^\circ\text{C}$ ( for 2T370A9,B9)	$P_{Kmax}$	15 (30) 8 (16)	15 (30) 8 (16)	1
Thermal resistance , $^\circ\text{C}/\text{mW}$ 2T370A-1, 2T370B-1 2T370A9, 2T370B9	$R_{Tn-c}$	5 2,5	5 2,5	

Note: 1 In temperature range  $+50^\circ\text{C} - +85^\circ\text{C}$   $I_{Cmax}$  decreases linearly.

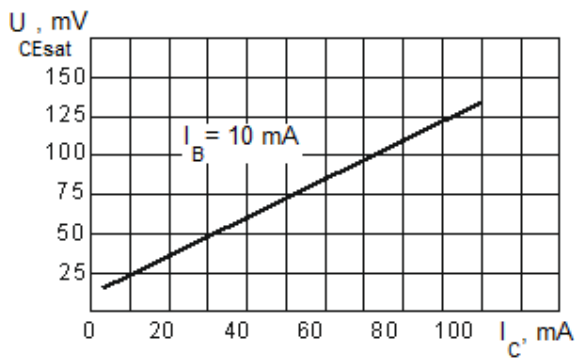
General typical parameters



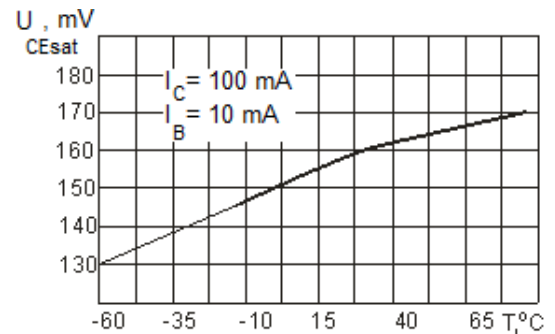
Dependence  $H_{21E}$  from  $I_E$



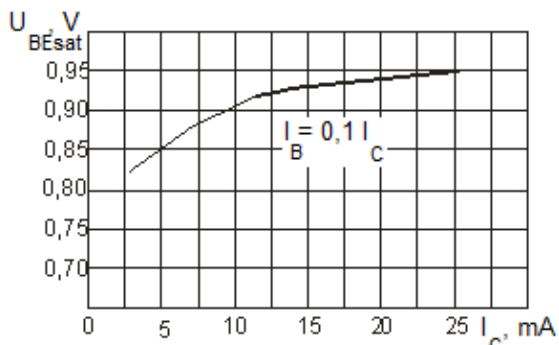
Dependence  $H_{21E}$  from temperature



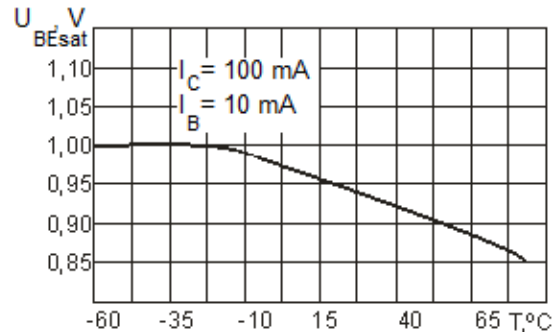
Dependence  $U_{CEsat}$  from  $I_C$



Dependence  $U_{CEsat}$  from temperature

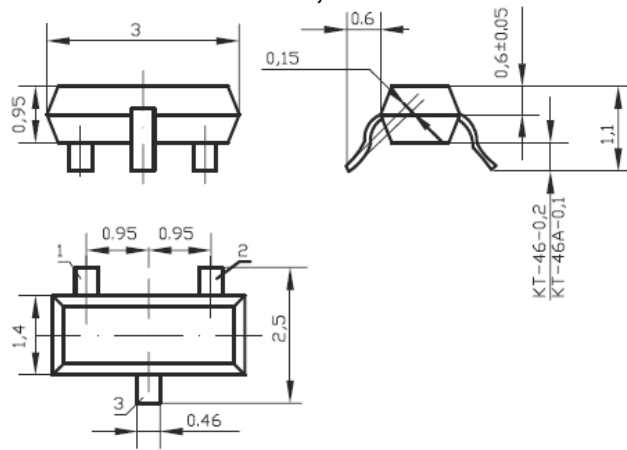


Dependence  $U_{BEsat}$  from  $I_C$



Dependence  $U_{BEsat}$  from temperature

Package drawing  
2T370A9, 2T370B9



KT-47