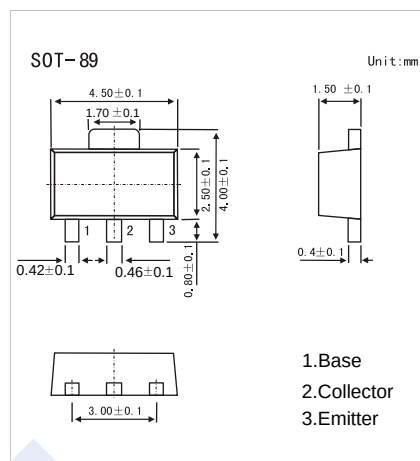


NPN Transistors

KTC4375

■ Features

- Low voltage
- Complementary to KTA1663

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	30	V
Collector - Emitter Voltage	V_{CEO}	30	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	1.5	A
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 1\text{ mA}, I_E = 0$	30			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 10\text{ mA}, I_B = 0$	30			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 1\text{ mA}, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 30\text{ V}, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1.5\text{ A}, I_B = 30\text{ mA}$			2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 1.5\text{ A}, I_B = 30\text{ mA}$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$	100		320	
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$			40	pF
Transition frequency	f_T	$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$		120		MHz

■ Classification of h_{FE}

Type	KTC4375-O	KTC4375-Y
Range	100-200	160-320
Marking	GO	GY

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KTC4375

■ Typical Characteristics

