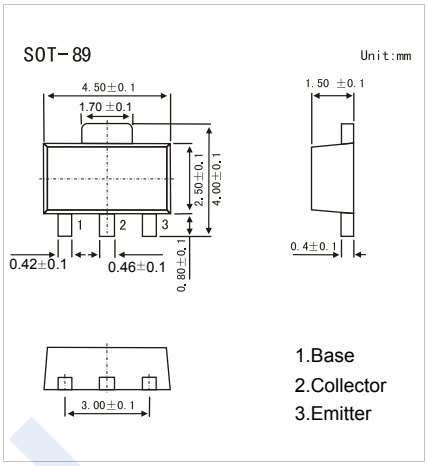
NPN Transistors

KTC4376



■ Features

- 1W (Mounted on Ceramic Substrate)
- Small Flat Package
- Complementary to KTA1664

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	35	V
Collector - Emitter Voltage	V_{CEO}	30	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	800	mA
Base Current	I_B	160	
Collector Power Dissipation	P_C	500	mW
		1	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100uA, I_E= 0	35			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 10 mA, I_B=0	30			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100uA, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 35V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B=20mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=500mA, I_B=20mA			1.2	
Base - emitter voltage	V_{BE}	V_{CE}= 1V, I_C=10mA	0.5		0.8	
DC current gain	h_{FE}	V_{CE}= 1V, I_C=100mA	100		320	
		V_{CE}= 1V, I_C=700mA	35			
Collector output capacitance	C_{ob}	V_{CB}= 10V,I_E=0,f=1MHz		13		pF
Transition frequency	f_T	V_{CE}= 5V, I_C= 10mA		120		MHz

■ Classification of $h_{fe(1)}$

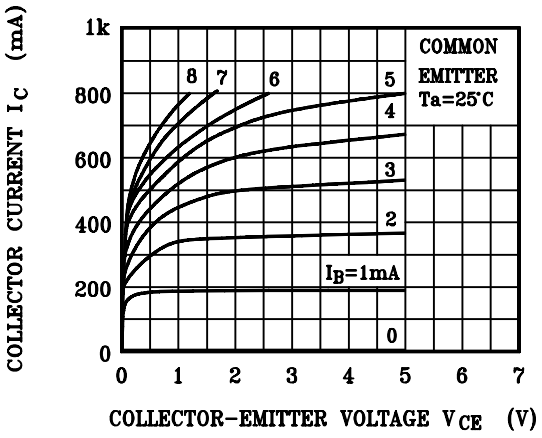
Type	KTC4376-O	KTC4376-Y
Range	100-200	160-320
Marking	PO	PY

NPN Transistors

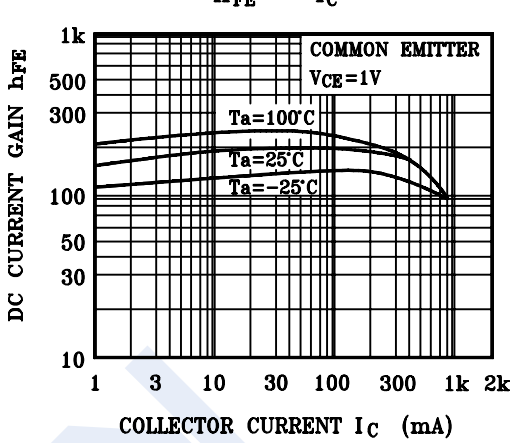
KTC4376

■ Typical Characterisitics

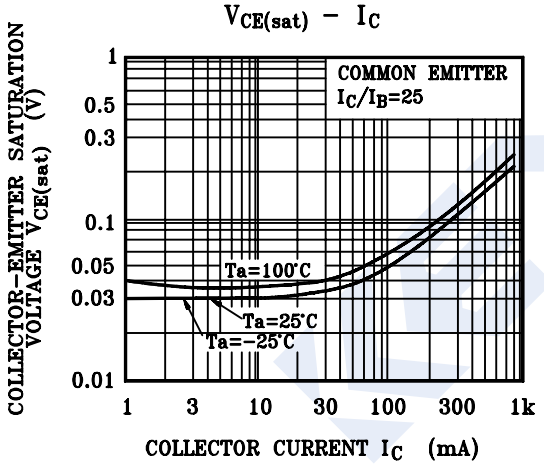
I_C – V_{CE}



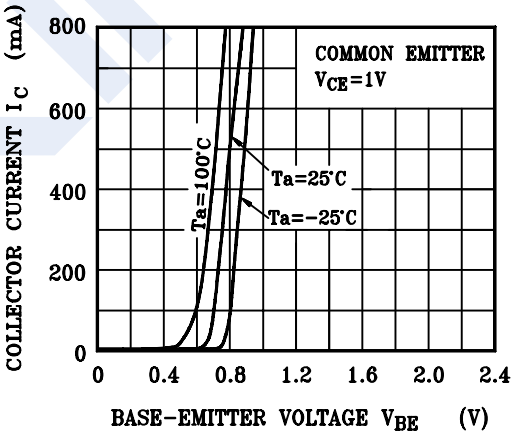
h_{FE} – I_C



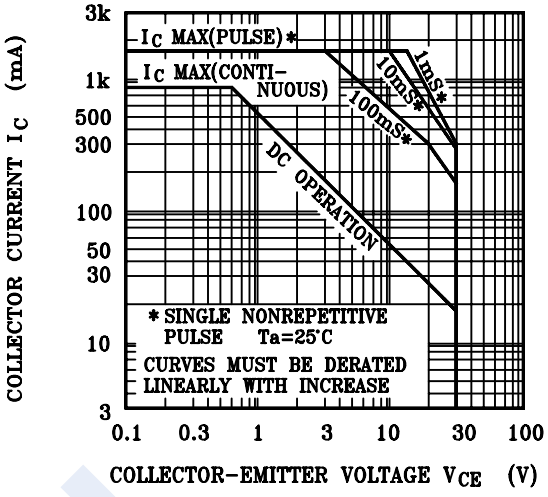
$V_{CE(sat)}$ – I_C



I_C – V_{BE}



SAFE OPERATING AREA



P_C – Ta