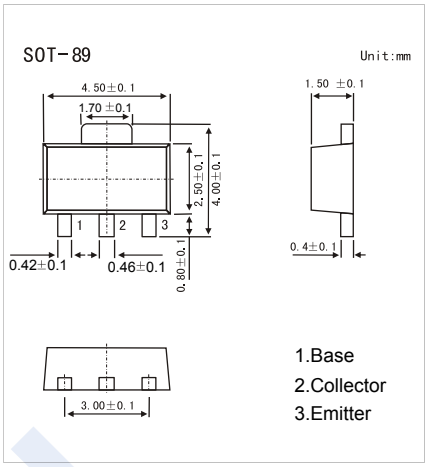
NPN Transistors

KTC4372



■ Features

- High Voltage Switching Application
- High Voltage
- High Transition Frequency
- Comlementary to KTA1660

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	200	V
Collector - Emitter Voltage	V_{CEO}	150	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	50	mA
Base Current	I_B	10	
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= 100 μA, I_E= 0	200			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B= 0	150			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 200 V , I_E= 0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10 mA, I_B=1mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=10 mA, I_B=1mA			1.2	
Base - emitter voltage	V_{BE}	V_{CE}= 5V, I_C= 30mA			1	
DC current gain	h_{FE}	V_{CE}= 5V, I_C= 10mA	70		240	
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz			5	pF
Transition frequency	f_T	V_{CE}= 30V, I_C= 10mA		120		MHz

■ Classification of h_{fe}

Type	KTC4372-O	KTC4372-Y
Range	70-140	120-240
Marking	AO	AY

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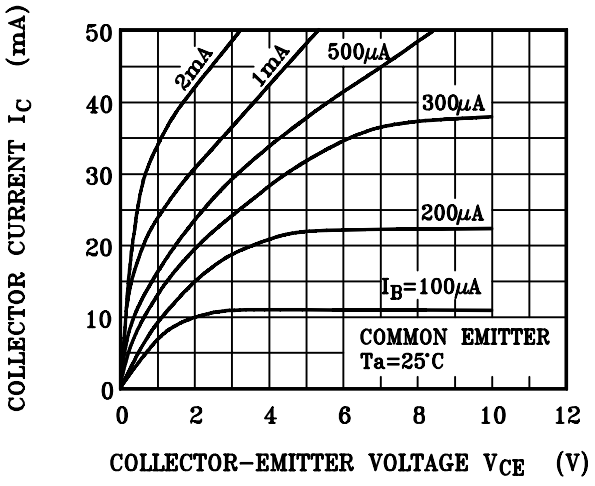
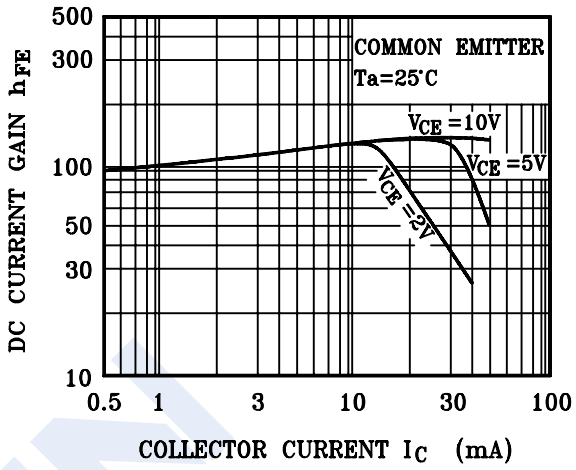
■ Typical Characterisitics

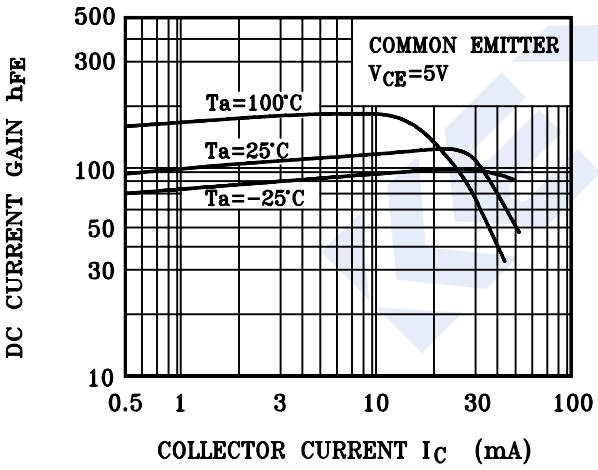
I_C – V_{CE}



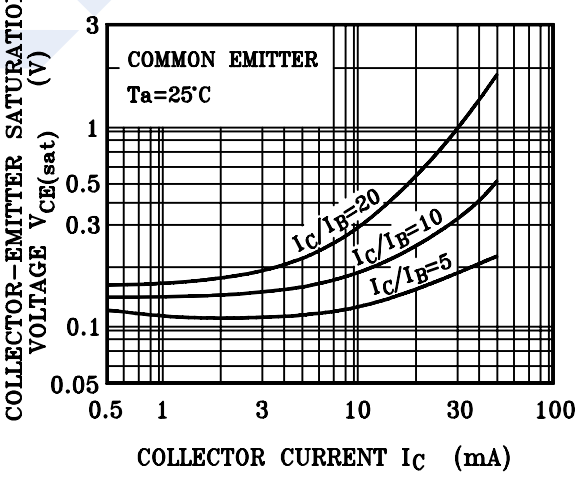
h_{FE} – I_C



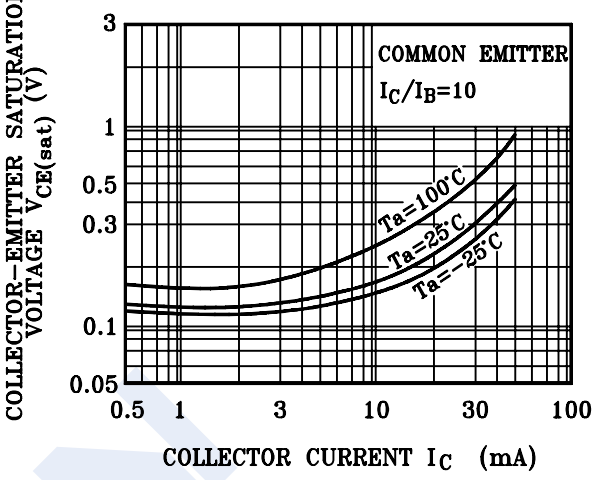
h_{FE} – I_C



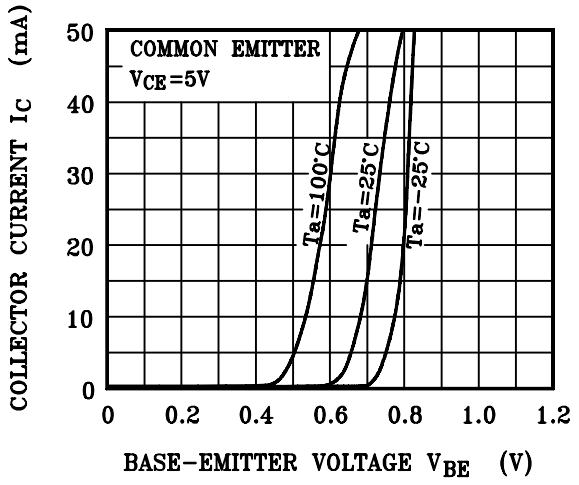
$V_{CE(sat)}$ – I_C



$V_{CE(sat)}$ – I_C



I_C – V_{BE}



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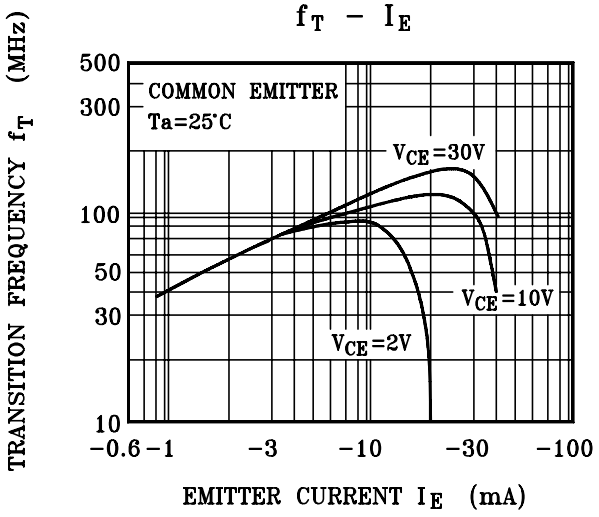
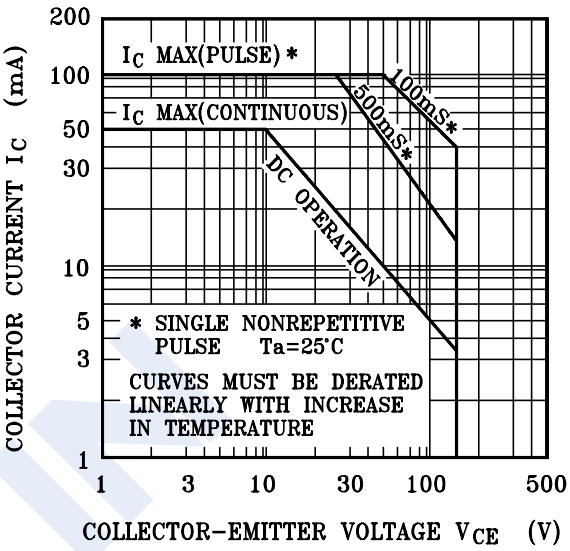
■ Typical Characterisitics

f_T – I_E



SAFE OPERATING AREA



P_C – Ta