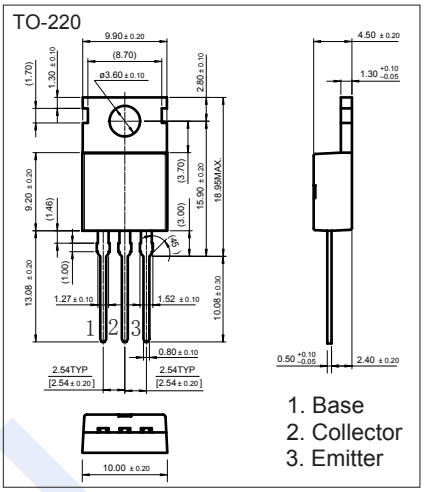
PNP Transistors

KTA1038



■ Features

- High Breakdown Voltage
- Low Collector Saturation Voltage
- Comlementary to KTC2018

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-100	V
Collector - Emitter Voltage	V_{CEO}	-100	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-5	A
Base Current	I_B	-0.5	
Emitter Current	I_E	5	
Collector Power Dissipation Tc = 25℃	P_C	40	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= -10 mA, I_E=0	-100			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -50 mA, I_B=0	-100			
Emitter - base breakdown voltage	V_{EBO}	I_E= -10 mA, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -100V , I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	mA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-4 A, I_B=-400mA			-2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-4 A, I_B=-400mA			-1.2	
Base - emitter voltage	V_{BE}	V_{CE}= -5V, I_C= -4 A			-1.5	
DC current gain	$h_{FE(1)}$	V_{CE}= -5V, I_C= -1 A	70		240	
	$h_{FE(2)}$	V_{CE}= -5V, I_C= -4 A	20			
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0,f=1MHz		90		pF
Transition frequency	f_T	V_{CE}= -5V, I_C= -1 A		30		MHz

■ Classification of $h_{fe(1)}$

Type	KTA1038-O	KTA1038-Y
Range	70-140	120-240

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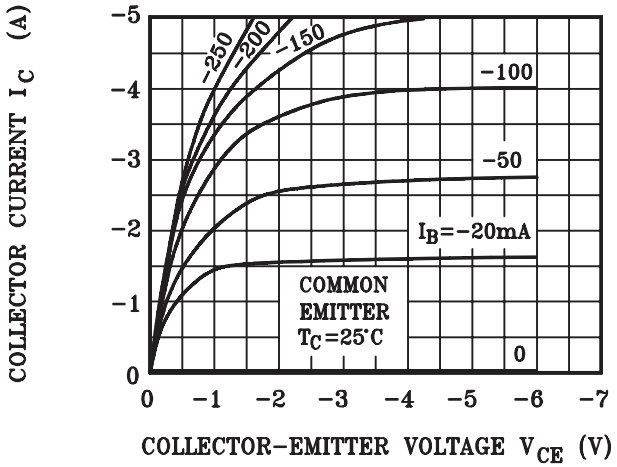
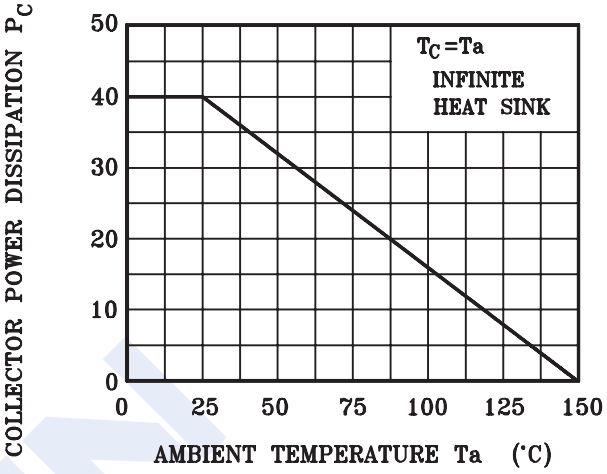
■ Typical Characterisitics

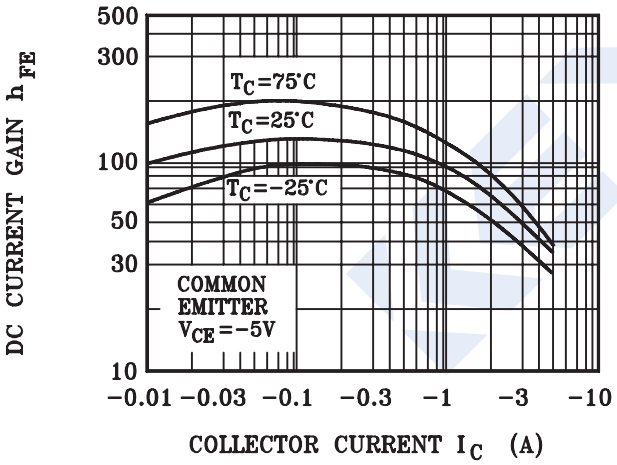
I_C – V_{CE}



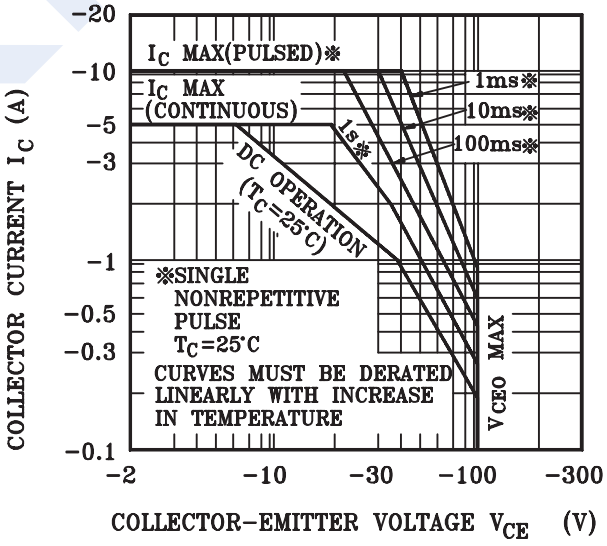
P_C – Ta



h_{FE} – I_C



SAFE OPERATING AREA



$V_{CE(sat)}$ – I_C