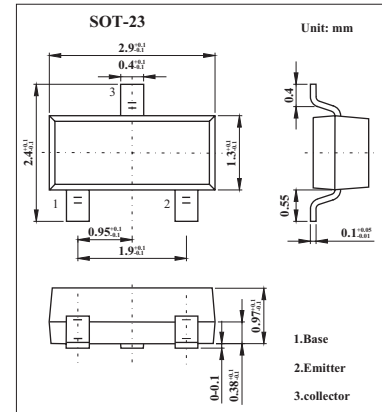


NPN Transistors

KST8050S

■ Features

- Collector Current: $I_c=0.5A$



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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	25	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current -Continuous	I_c	0.5	A
Collector Dissipation	P_c	0.3	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	$^\circ C$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_c = 100 \mu A, I_E = 0$	40			V
Collector-emitter breakdown voltage	V_{CE0}	$I_c = 1mA, I_B = 0$	25			V
Emitter-base Breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_c = 0$	5			V
Collector-base cut-off current	I_{CB0}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Collector-emitter cut-off current	I_{CE0}	$V_{CE} = 20V, I_B = 0$			0.1	μA
Emitter-base cut-off current	I_{EB0}	$V_{EB} = 5V, I_c = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 1V, I_c = 50mA$	120		350	
		$V_{CE} = 1V, I_c = 500mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500mA, I_B = 50mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500mA, I_B = 50mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 6V, I_c = 20mA, f = 30MHz$	150			MHz

■ h_{FE} Classification

Marking	J3Y	
Rank	L	H
h_{FE}	120~200	200~350

KST8050S

■ Typical Characteristics

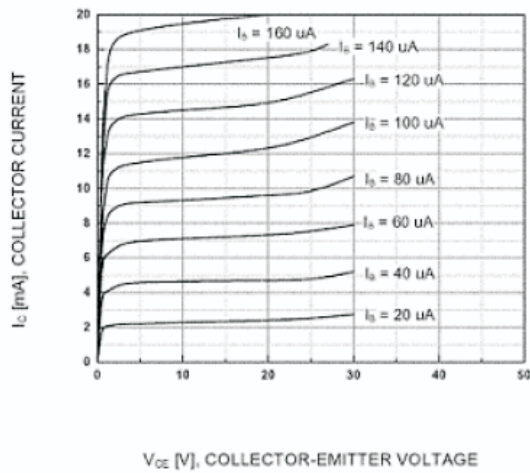


Fig.1 Static Characteristic

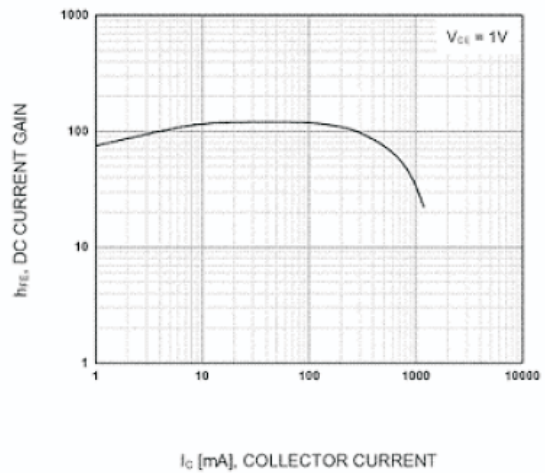


Fig.2 DC Current Gain

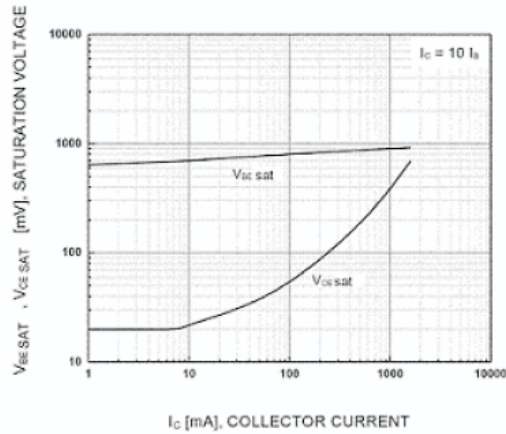


Fig.3 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

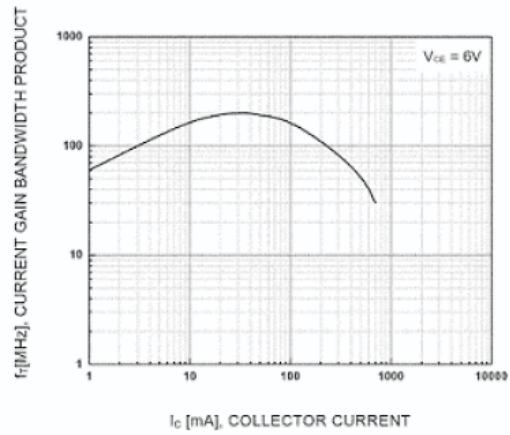


Fig.4 Current Gain Bandwidth Product