

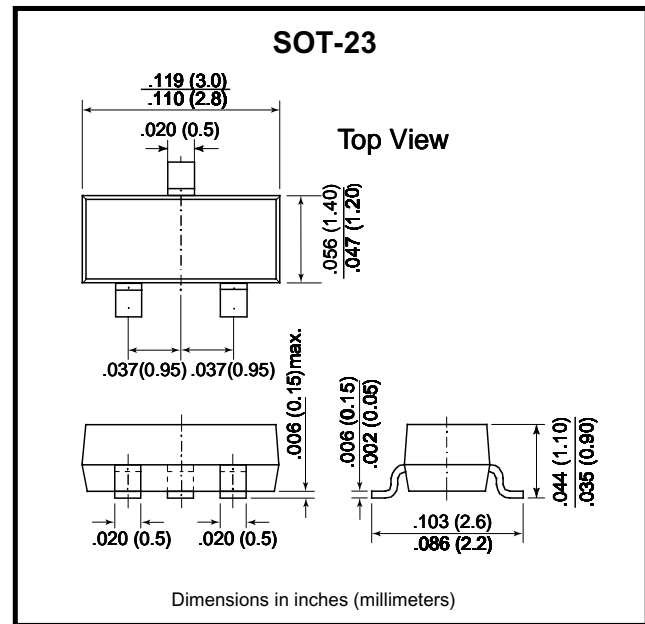
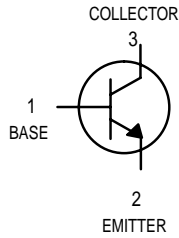
High Voltage Transistor (NPN)

BTC4505N3

Features

High breakdown voltage. ($V_{CE0} = 400V$)

Low saturation voltage, typically $V_{CE(sat)} = 0.1V$ at $I_C/I_B = 10mA/1mA$



Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	300	mA
Power Dissipation	P_d	0.225	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	400	-	-	V	$I_C=50\mu A, I_E=0$
BV_{CEO}	400	-	-	V	$I_C=1mA, I_B=0$
BV_{EBO}	6	-	-	V	$I_E=50\mu A, I_C=0$
I_{CBO}	-	-	10	μA	$V_{CB}=400V, I_E=0$
I_{CER}	-	-	20	nA	$V_{CE}=300V, R_{EB}=4k\Omega$
I_{EBO}	-	-	10	μA	$V_{EB}=6V, I_C=0$
$*V_{CE(sat)}$	-	0.1	0.5	V	$I_C=10mA, I_B=1mA$
$*V_{BE(sat)}$	-	-	1.5	V	$I_C=10mA, I_B=1mA$
h_{FE}	52	-	270	-	$V_{CE}=10V, I_C=10mA$
f_T	-	20	-	MHz	$V_{CE}=10V, I_C=10mA, f=10MHz$
C_{ob}	-	7	-	pF	$V_{CB}=10V, f=1MHz$

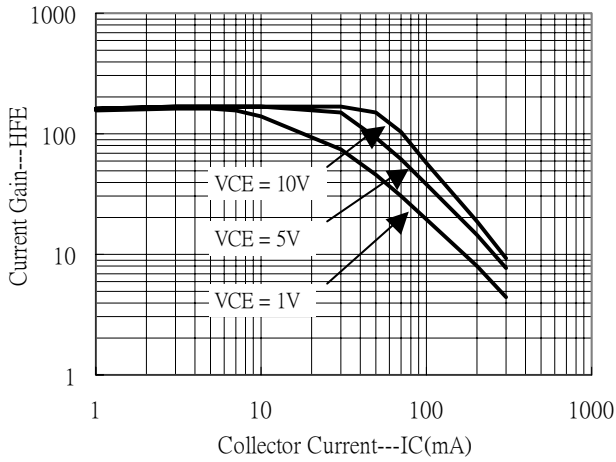
*Pulse Test : Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$

Classification Of h_{FE}

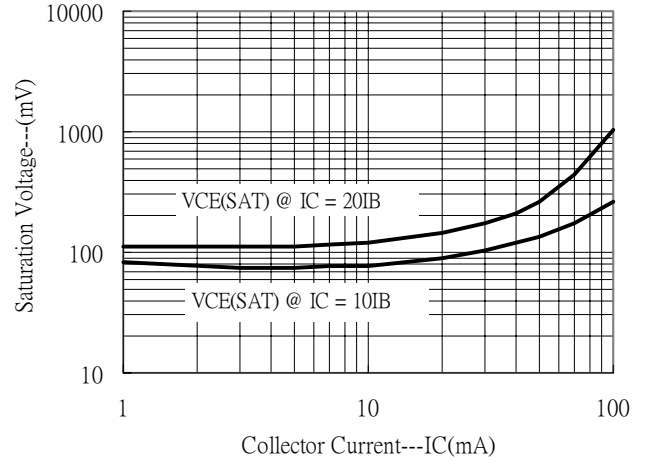
Rank	K	P	Q
Range	52~120	82~180	120~270

Characteristic Curves

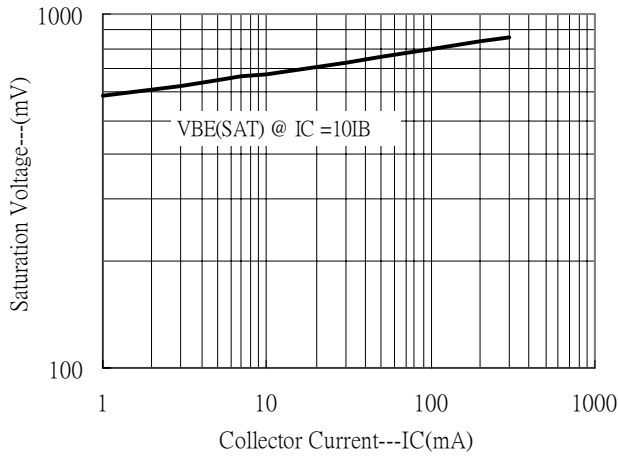
Current Gain vs Collector Current



Saturation Voltage vs Collector Current



Saturation Voltage vs Collector Current



Power Derating Curve

