

### SWITCHING APPLICATION.

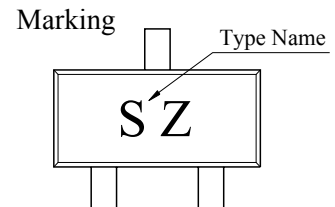
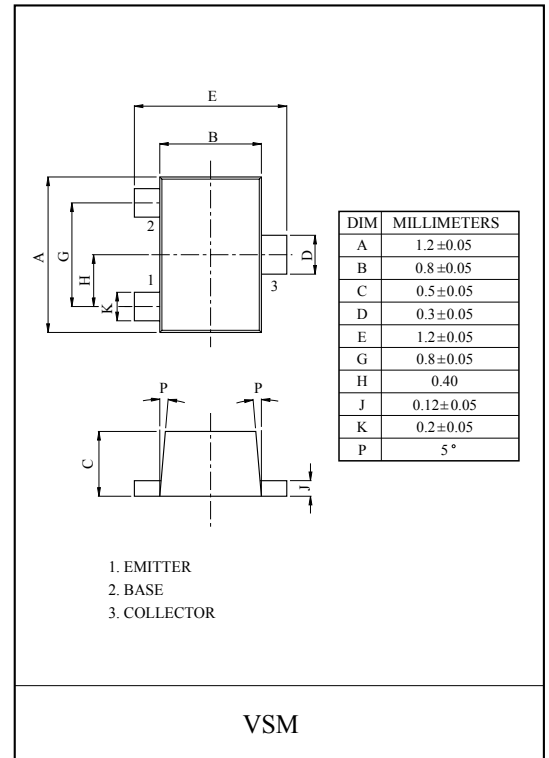
### FEATURES

- A Collector Current is Large.
- Collector Saturation Voltage is low.  
:  $V_{CE(sat)} \leq -250\text{mV}$  at  $I_C = -200\text{mA}/I_B = -10\text{mA}$ .
- Complementary to KTC4072V.

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-15	V
Collector-Emitter Voltage	$V_{CEO}$	-12	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current	$I_C$	-500	mA
	$I_{CP}^*$	-1	A
Collector Power Dissipation	$P_C$	100	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C

\* Single pulse  $P_w = 1\text{mS}$ .

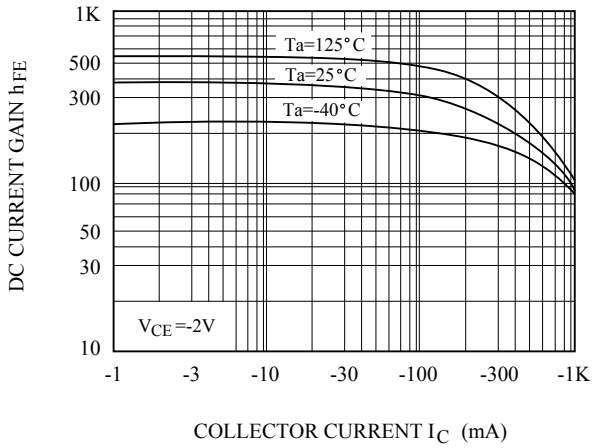


### ELECTRICAL CHARACTERISTICS (Ta=25°C)

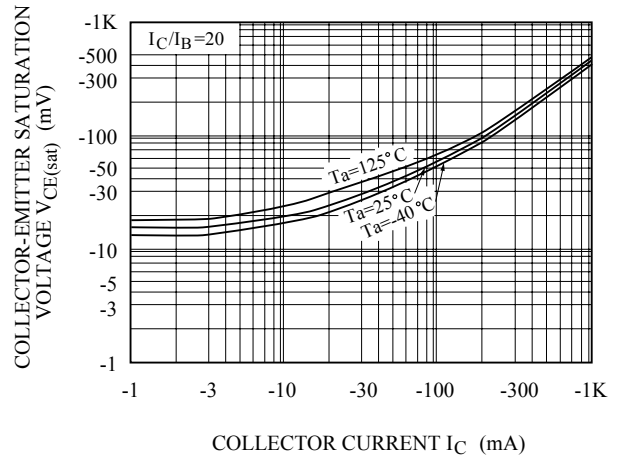
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -15\text{V}, I_E = 0$	-	-	-100	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}$	-15	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$	-12	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}$	-6	-	-	V
DC Current Gain	$h_{FE}$	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$	270	-	680	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -200\text{mA}, I_B = -10\text{mA}$	-	-100	-250	mV
Transition Frequency	$f_T$	$V_{CE} = -2\text{V}, I_C = -10\text{mA}, f_T = 100\text{MHz}$	-	260	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$	-	6.5	-	pF

# KTA2012V

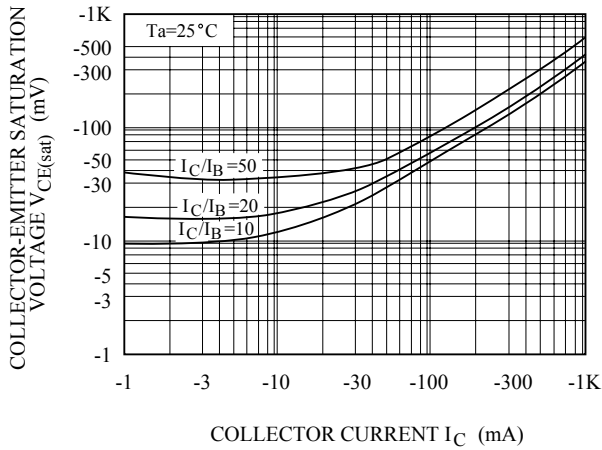
$h_{FE} - I_C$



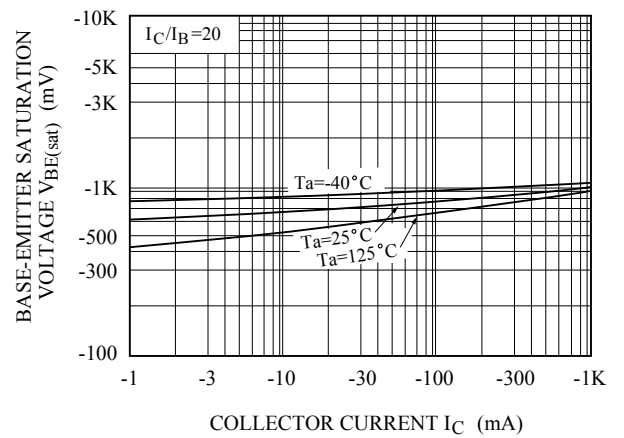
$V_{CE(sat)} - I_C$



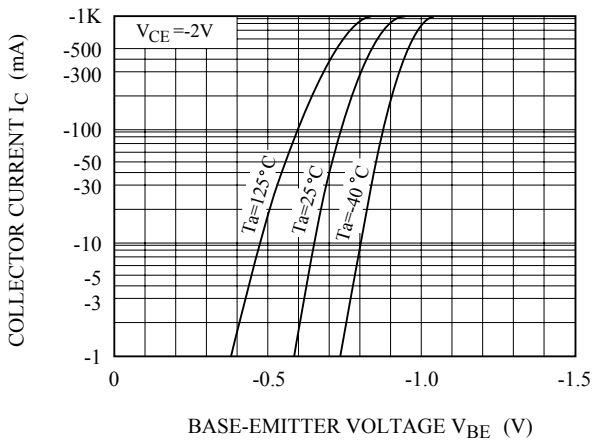
$V_{CE(sat)} - I_C$



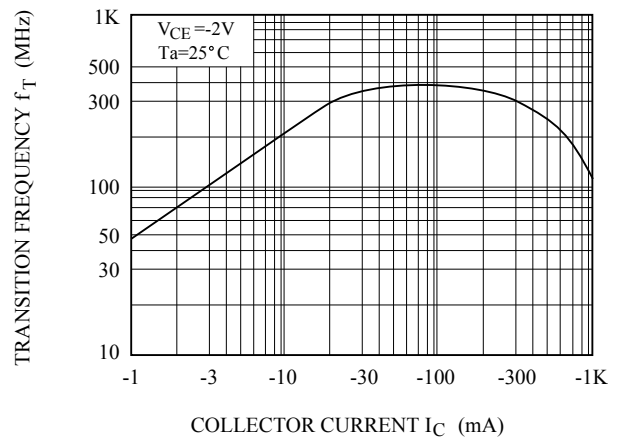
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$

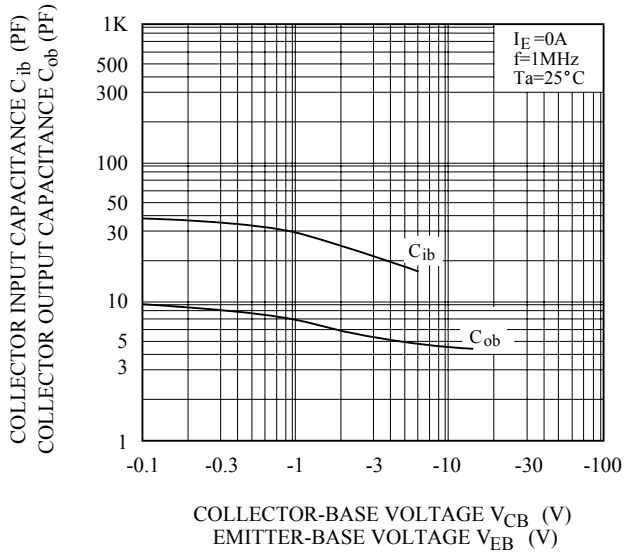


$f_T - I_C$



# KTA2012V

$C_{ob} - V_{CB}$ ,  $C_{ib} - V_{EB}$



$P_c - T_a$

