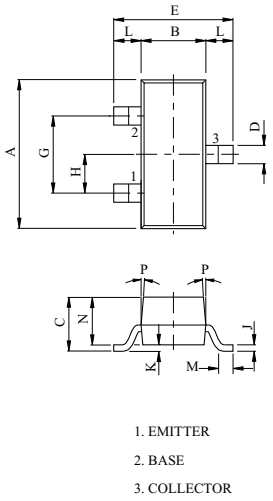
KTC3876S

EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Excellent h_{FE} Linearity
  : $h_{FE}(2)$=25(Min.) at V_{CE}=6V, I_C=400mA.
- Complementary to KTA1505S.



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7 °

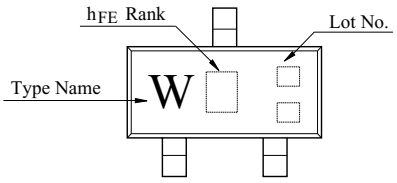
1. EMITTER
2. BASE
3. COLLECTOR

SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Base Current	I_B	50	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

Marking

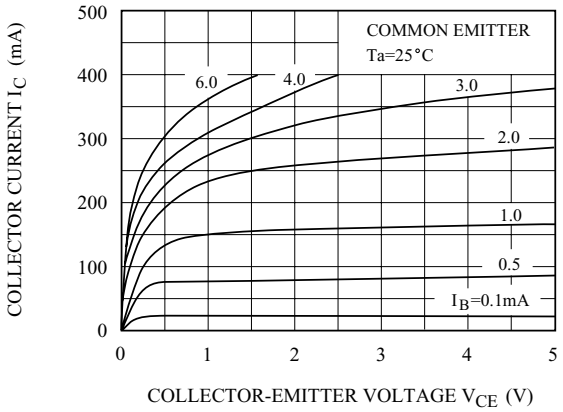


ELECTRICAL CHARACTERISTICS (Ta=25℃)

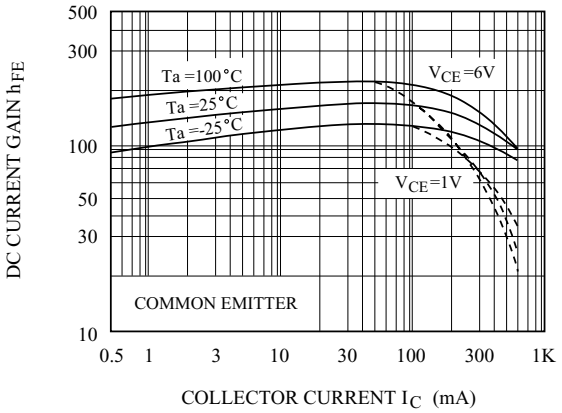
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=35V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	0.1	μA
DC Current Gain (Note)	$h_{FE}(1)$	V_{CE}=1V, I_C=100mA	70	-	400	
	$h_{FE}(2)$	V_{CE}=6V, I_C=400mA	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA	-	0.1	0.25	V
Base-Emitter Voltage	V_{BE}	V_{CE}=1V, I_C=100mA	-	0.8	1.0	V
Transition Frequency	f_T	V_{CE}=6V, I_C=20mA	-	300	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=6V, I_E=0, f=1MHz	-	7.0	-	pF

(Note) : $h_{FE}(1)$ Classification O:70 ~ 140 Y:120 ~ 240 GR:200 ~ 400
$h_{FE}(2)$ Classification O:25Min. Y:40Min.

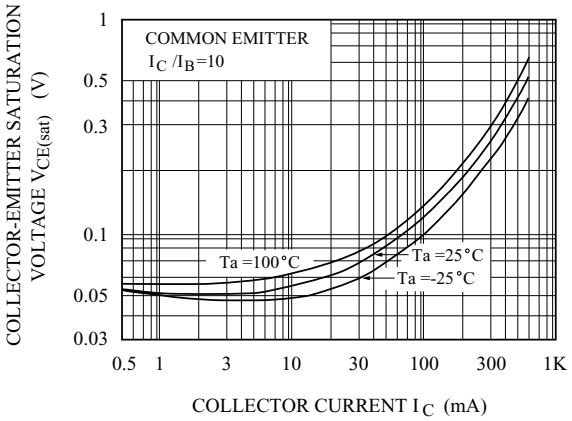
I_C - V_{CE}
(LOW VOLTAGE REGION)



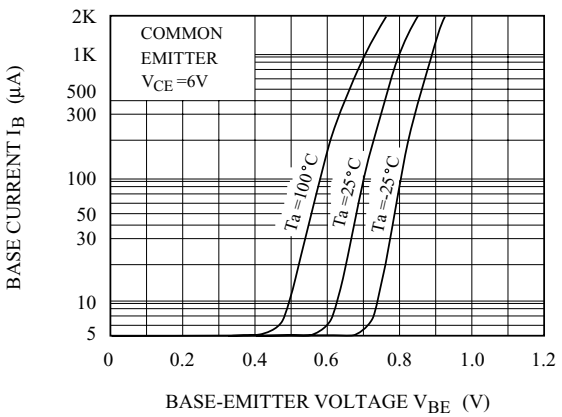
h_{FE} - I_C



$V_{CE(sat)}$ - I_C



I_B - V_{BE}



Pc - Ta