



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

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KEC

**SEMICONDUCTOR
TECHNICAL DATA**

KTC3876S

EPITAXIAL PLANAR NPN TRANSISTOR

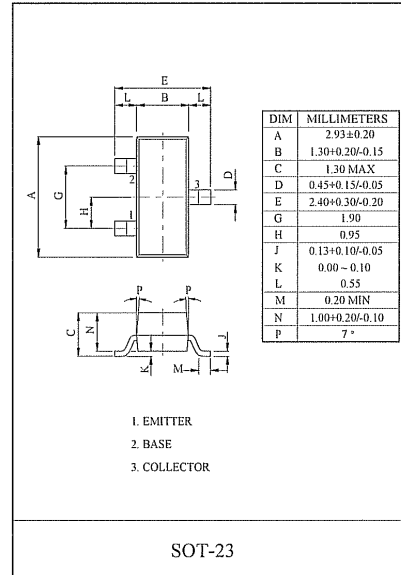
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

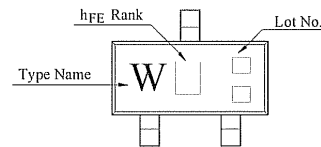
- Excellent h_{FE} Linearity
: $h_{FE(2)}=25(\text{Min.})$ at $V_{CE}=6V$, $I_C=400\text{mA}$.
- Complementary to KTA1505S.

MAXIMUM RATING ($T_a=25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$



Marking



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

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)	$h_{FE(1)}$	$V_{CE}=1V$, $I_C=100\text{mA}$	70	-	400	
	$h_{FE(2)}$	$V_{CE}=6V$, $I_C=400\text{mA}$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=10\text{mA}$	-	0.1	0.25	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=1V$, $I_C=100\text{mA}$	-	0.8	1.0	V
Transition Frequency	f_T	$V_{CE}=6V$, $I_C=20\text{mA}$	-	300	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=6V$, $I_E=0$, $f=1\text{MHz}$	-	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.