

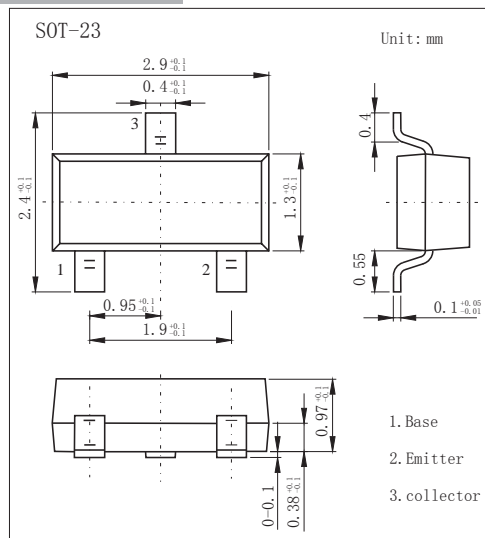
## SOT-23 Plastic-Encapsulate Transistors

### FEATURES

- Complementary To KTA1505.
- Excellent HFE Linearity.
- Low noise.
- NPN Silicon Epitaxial Planar Transistor
- General purpose application, switching application.

### MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	35	V
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	500	mA
P <sub>C</sub>	Collector Power Dissipation	150	mW
T <sub>j</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-55 to +150	°C

### PACKAGE INFORMATION

Device	Package	Shipping
KTC3876	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	35			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =35V, I <sub>E</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA V <sub>CE</sub> =6V, I <sub>C</sub> =400mA	70 25		400	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.1	0.25	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA		0.8	1.0	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =20mA		300		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =6V, I <sub>E</sub> =0, f=1MHz		7		pF

### CLASSIFICATION OF h<sub>FE</sub>

Rank	O	Y	G
Range	70-140	120-240	200-400
Marking	WO	WY	WG