



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23 Plastic-Encapsulate Transistors

KTC3876 TRANSISTOR (NPN)

FEATURES

- High h_{FE}
- Complementary to KTA1505

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	500	mA
P_C	Collector Power Dissipation	200	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=35\text{V}$, $I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$			0.1	μA
DC current gain	h_{FE1}	$V_{CE}=1\text{V}$, $I_C=100\text{mA}$	70		400	
	h_{FE2}	$V_{CE}=6\text{V}$, $I_C=400\text{mA}$ O Y	25 40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=10\text{mA}$			0.25	V
base-emitter voltage	V_{BE}	$V_{CE}=1\text{V}$, $I_B=100\text{mA}$			1	V
Transition frequency	f_T	$V_{CE}=6\text{V}$, $I_C=20\text{mA}$		300		MHz
Collector output capacitance	C_{ob}	$V_{CB}=6\text{V}$, $I_E=0$, $f=1\text{MHz}$		7		pF

CLASSIFICATION OF h_{FE}

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

Typical Characteristics

KTC3876

