

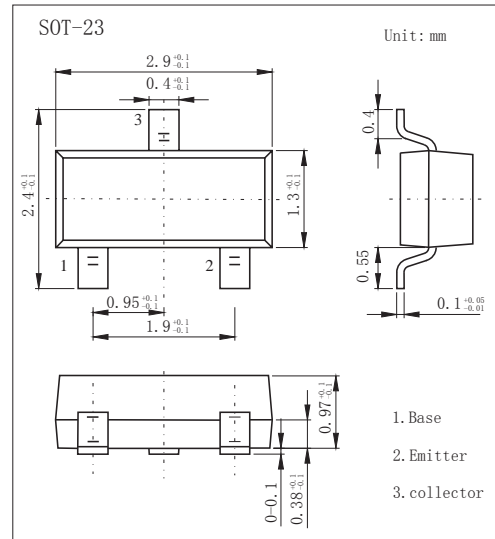
SOT-23 Plastic-Encapsulate Transistors

Features

- High hFE
- Low noise
- Complementary to KTA1504
- NPN Transistors

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	60	V
Collector - Emitter Voltage	V _{CEO}	50	
Emitter - Base Voltage	V _{EB0}	5	
Collector Current - Continuous	I _c	150	mA
Collector Power Dissipation	P _c	150	mA
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

PACKAGE INFORMATION

Device	Package	Shipping
KTC3875	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _c = 100 μA, I _E = 0	60			V
Collector- emitter breakdown voltage	V _{CEO}	I _c = 1 mA, I _B = 0	50			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CB0}	V _{CB} = 60 V, I _E = 0			100	nA
Emitter cut-off current	I _{EB0}	V _{EB} = 5V, I _C =0			100	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100 mA, I _B =10mA			0.25	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =100 mA, I _B =10mA			1	
DC current gain	h _{FE}	V _{CE} = 6V, I _C = 2mA	70		700	
Noise figure	NF	V _{CE} =6V, I _C =0.1mA, R _g =10kΩ, f=1KHZ		1	10	dB
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f=1MHZ			3.5	pF
Transition frequency	f _T	V _{CE} = 10V, I _C = 1mA	80			MHz

Classification of h_{FE}

Type	KTC3875-O	KTC3875-Y	KTC3875-G	KTC3875-L
Range	70-140	120-240	200-400	350-700
Marking	ALO	ALY	ALG	ALL



RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

