

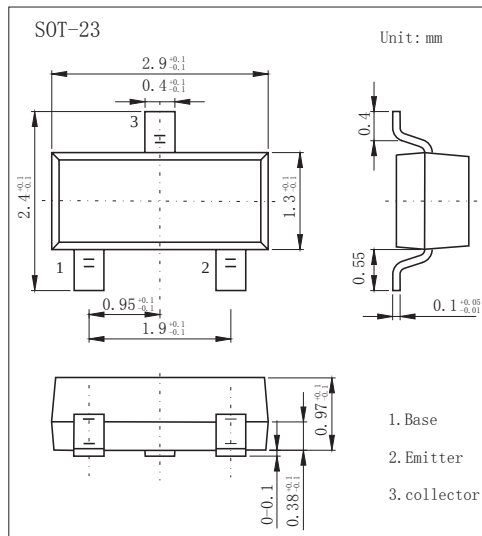
SOT-23 Plastic-Encapsulate Transistors

Features

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

MECHANICAL DATA

- Case style:SOT-23molded 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_{CE0}	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}	$I_C = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 mA, I_B = 0$	50			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 60 V, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			1	
DC current gain	hFE	$V_{CE} = 6 V, I_C = 2 mA$	70		700	
Noise figure	NF	$V_{CE} = 6 V, I_C = 0.1 mA, R_g = 10 k\Omega, f = 1 KHZ$		1	10	dB
Collector output capacitance	C_{ob}	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$			3.5	pF
Transition frequency	fr	$V_{CE} = 10 V, I_C = 1 mA$	80			MHz

Classification of hfe

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

