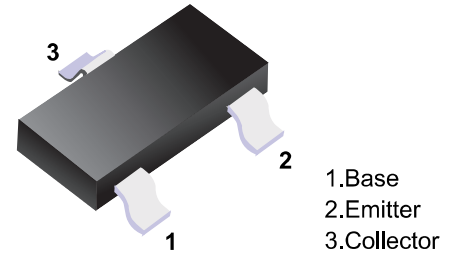


■ NPN Transistors



■ Simplified outline(SOT-23)

■ Features

- High hFE
- Low noise
- Complementary to KTA1504

■ Absolute Maximum Ratings Ta = 25°C

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	

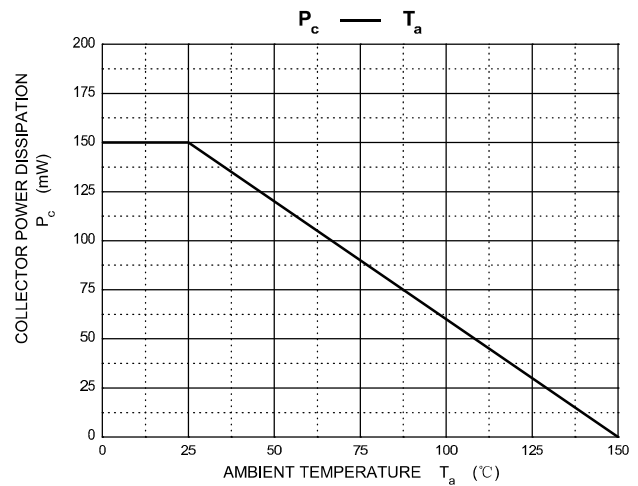
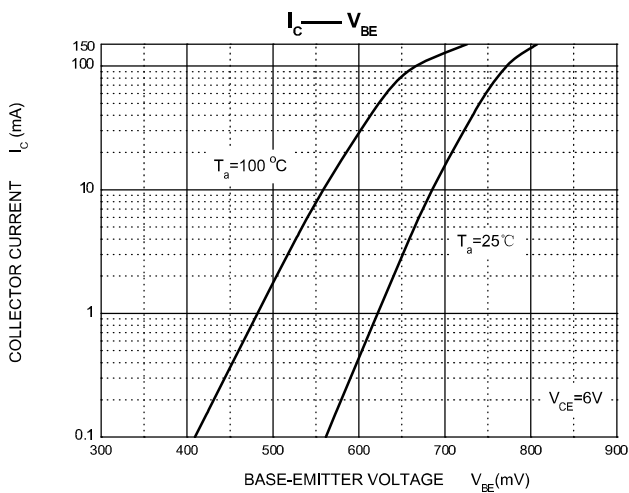
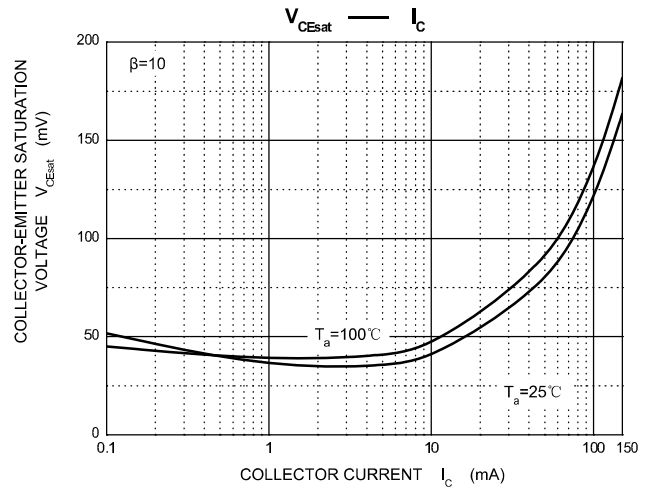
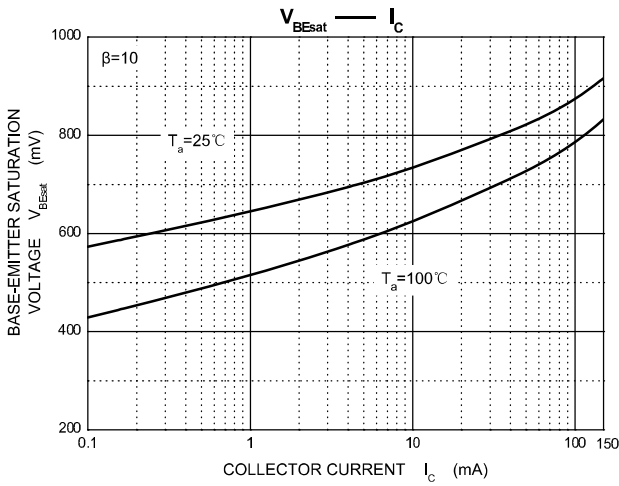
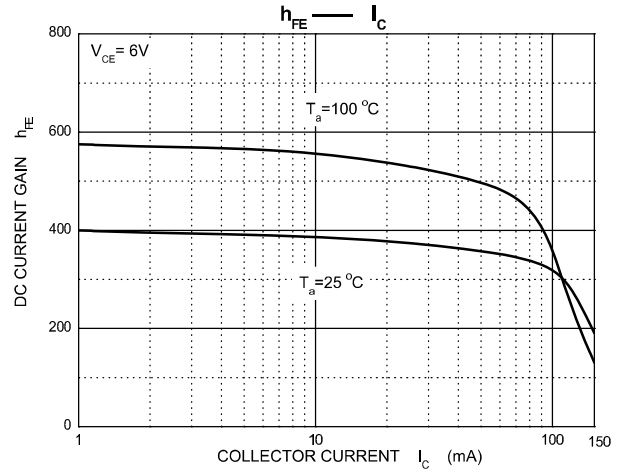
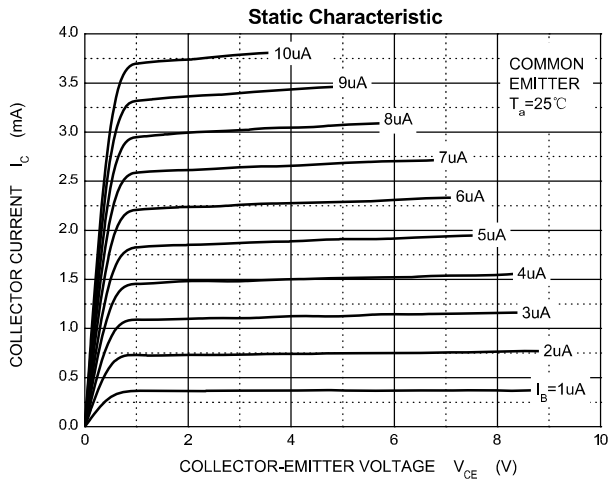
■ Electrical Characteristics Ta = 25°C

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 _{CE0}	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 hfe

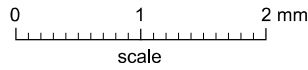
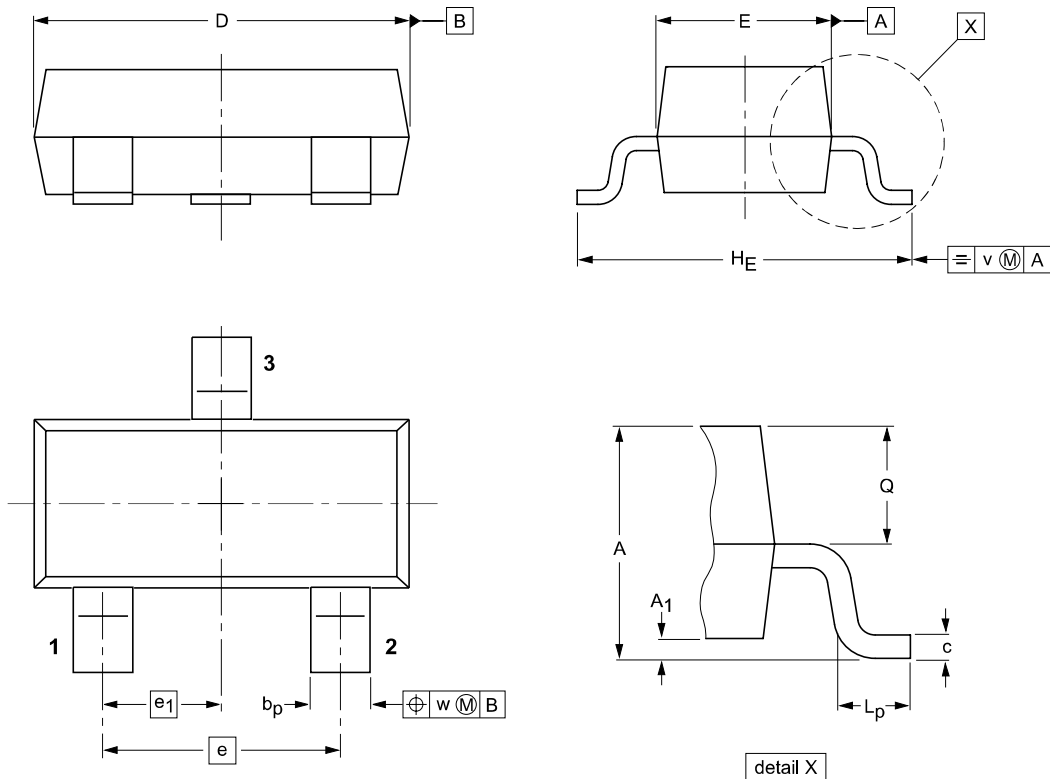
Type	KTC3875-O	KTC3875-Y	KTC3875-G	KTC3875-L
Range	70-140	120-240	200-400	350-700
Marking	ALO	ALY	ALG	ALL

■ Typical Characteristics



Package Outline

SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1