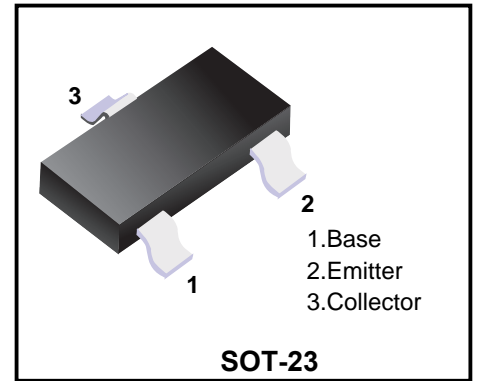


NPN Transistors



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	mW
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

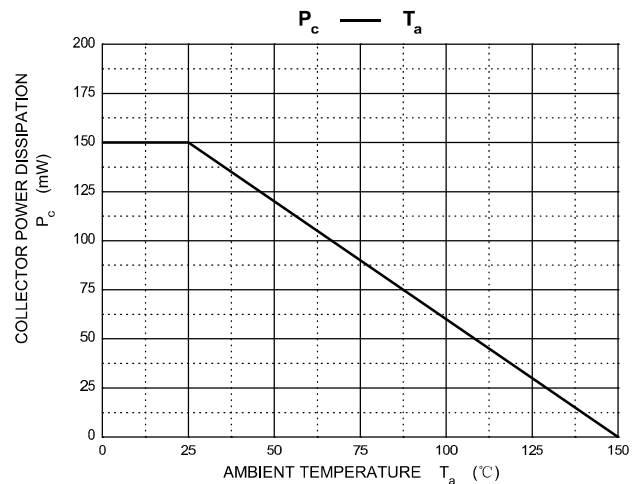
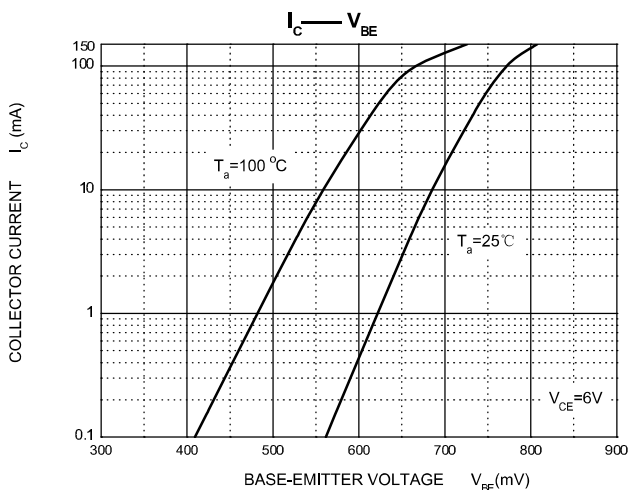
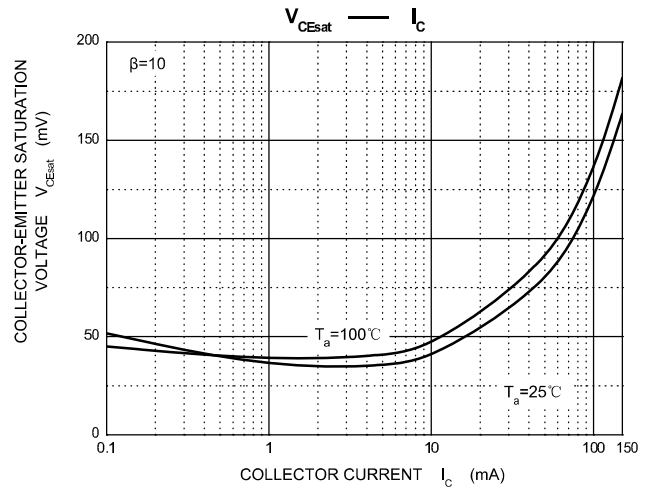
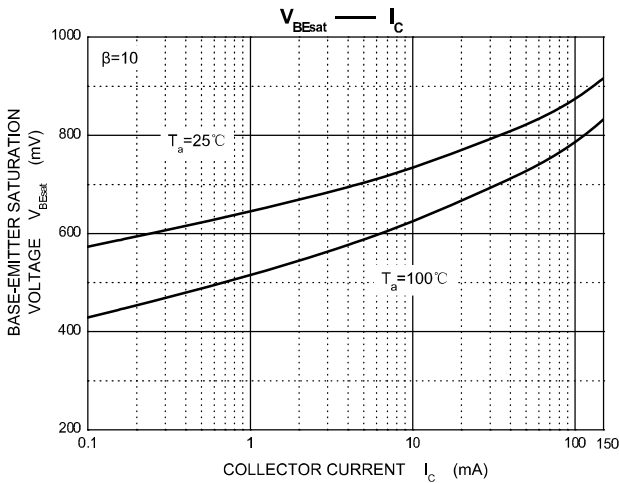
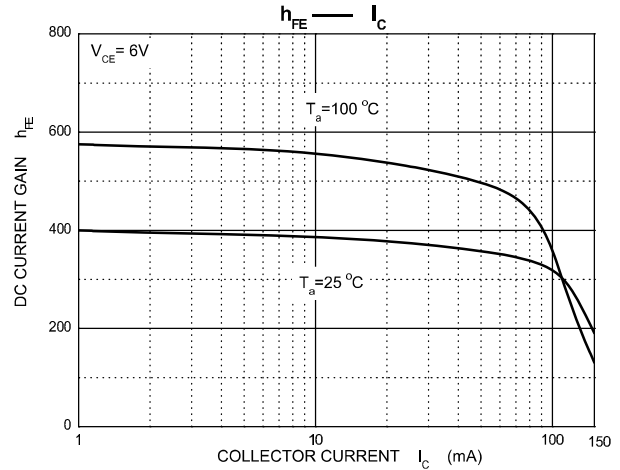
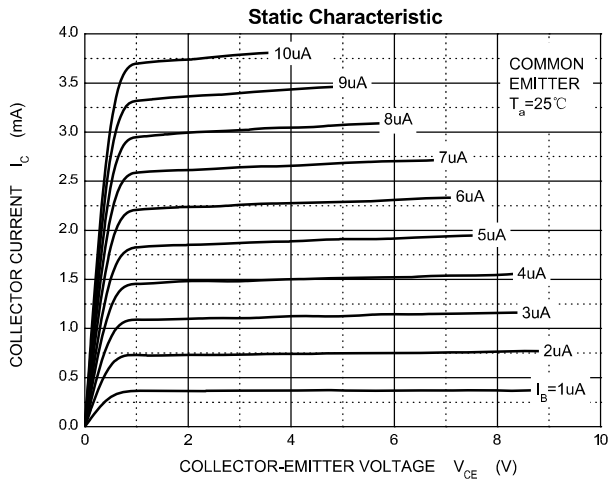
Electrical Characteristics (Ta=25°C unless otherwise specified.)

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

h_{FE} Classification

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



Ordering information

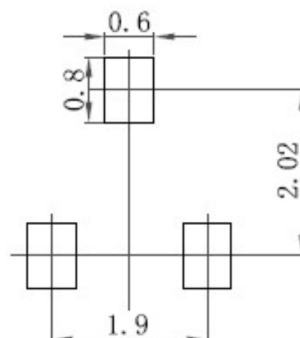
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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