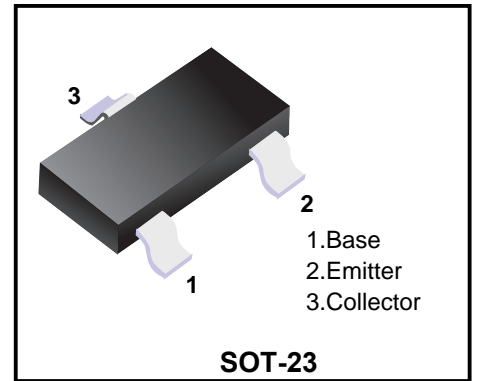


**NPN Transistors**

**Features**

- Low Cob.Cob=2.0pF (Typ.)



**Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	60	V
Collector-emitter voltage	V <sub>CEO</sub>	50	V
Emitter-base voltage	V <sub>EB0</sub>	7	V
Collector current	I <sub>c</sub>	0.15	A
Collector power dissipation	P <sub>c</sub>	0.2	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

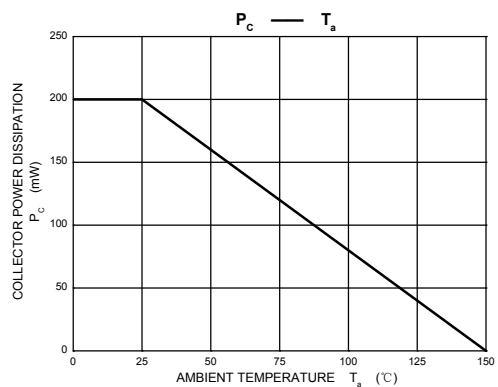
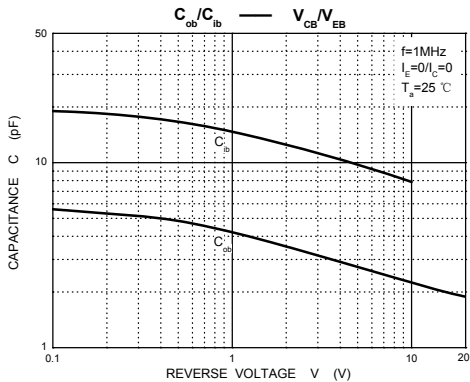
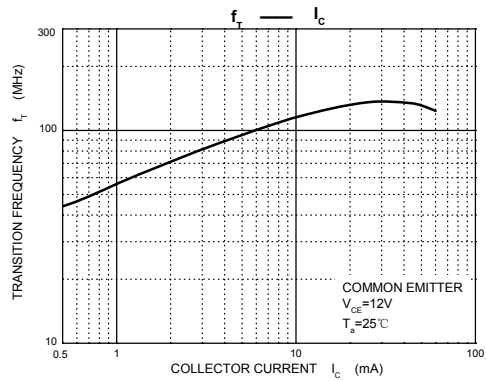
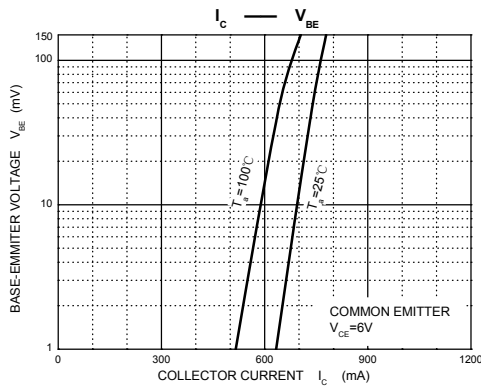
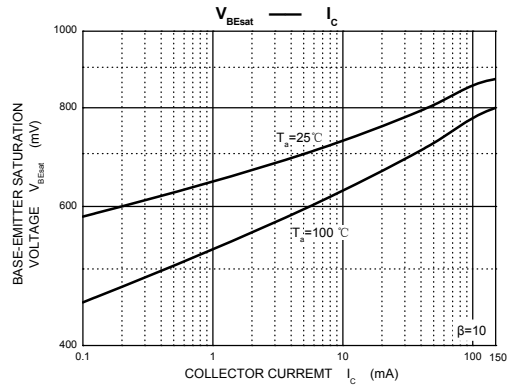
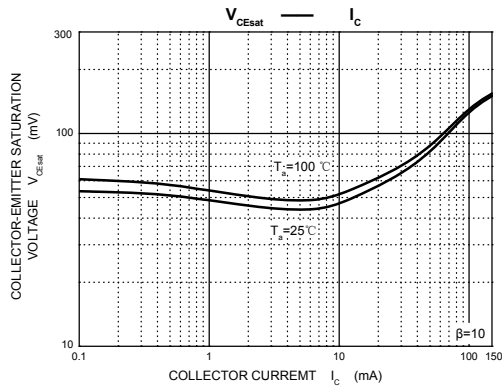
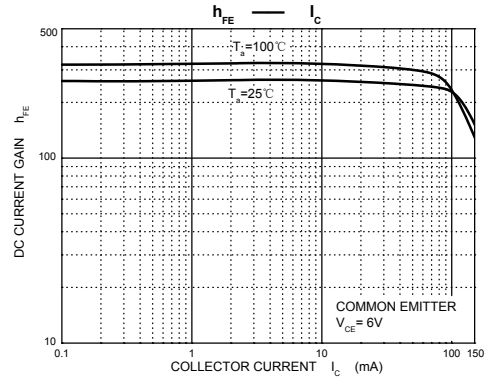
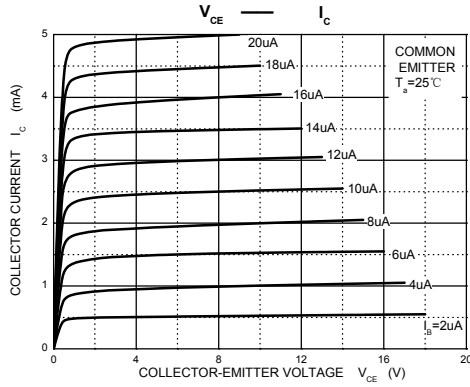
**Electrical Characteristics (Ta=25°C unless otherwise specified.)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = 50 μA, I <sub>E</sub> = 0	60			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>c</sub> = 1 mA, I <sub>B</sub> = 0	50			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = 50 μA, I <sub>c</sub> = 0	7			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 60 V, I <sub>E</sub> = 0			100	nA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 7V, I <sub>c</sub> =0			100	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =50 mA, I <sub>B</sub> =5mA			0.4	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =50 mA, I <sub>B</sub> =5mA			1.2	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 6V, I <sub>c</sub> = 1mA	120		560	
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 12V, I <sub>E</sub> = 0,f=1MHz		2	3.5	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 12V, I <sub>E</sub> = -2mA,f=100MHz	80			MHz

**h<sub>FE</sub> Classification**

Type	2SC2412/K-Q	2SC2412/K-R	2SC2412/K-S
Range	120-270	180-390	270-560
Marking	BQ	BR	BS

**Typical Characteristics**



**Ordering information**

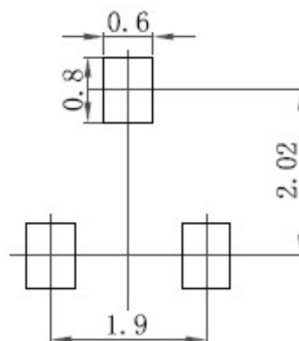
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**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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