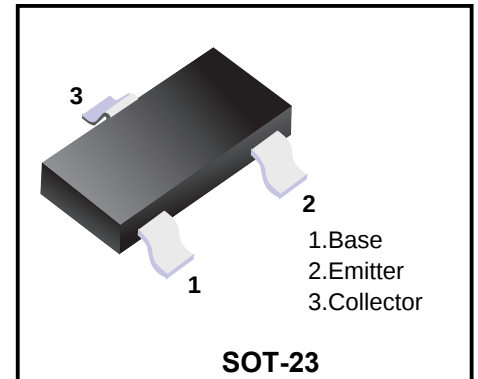


NPN Transistors

Features

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



Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	60	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EB0}	7	V
Collector current	I _c	0.15	A
Collector power dissipation	P _c	0.2	W
Junction temperature	T _j	150	℃
Storage temperature	T _{stg}	-55 to +150	℃

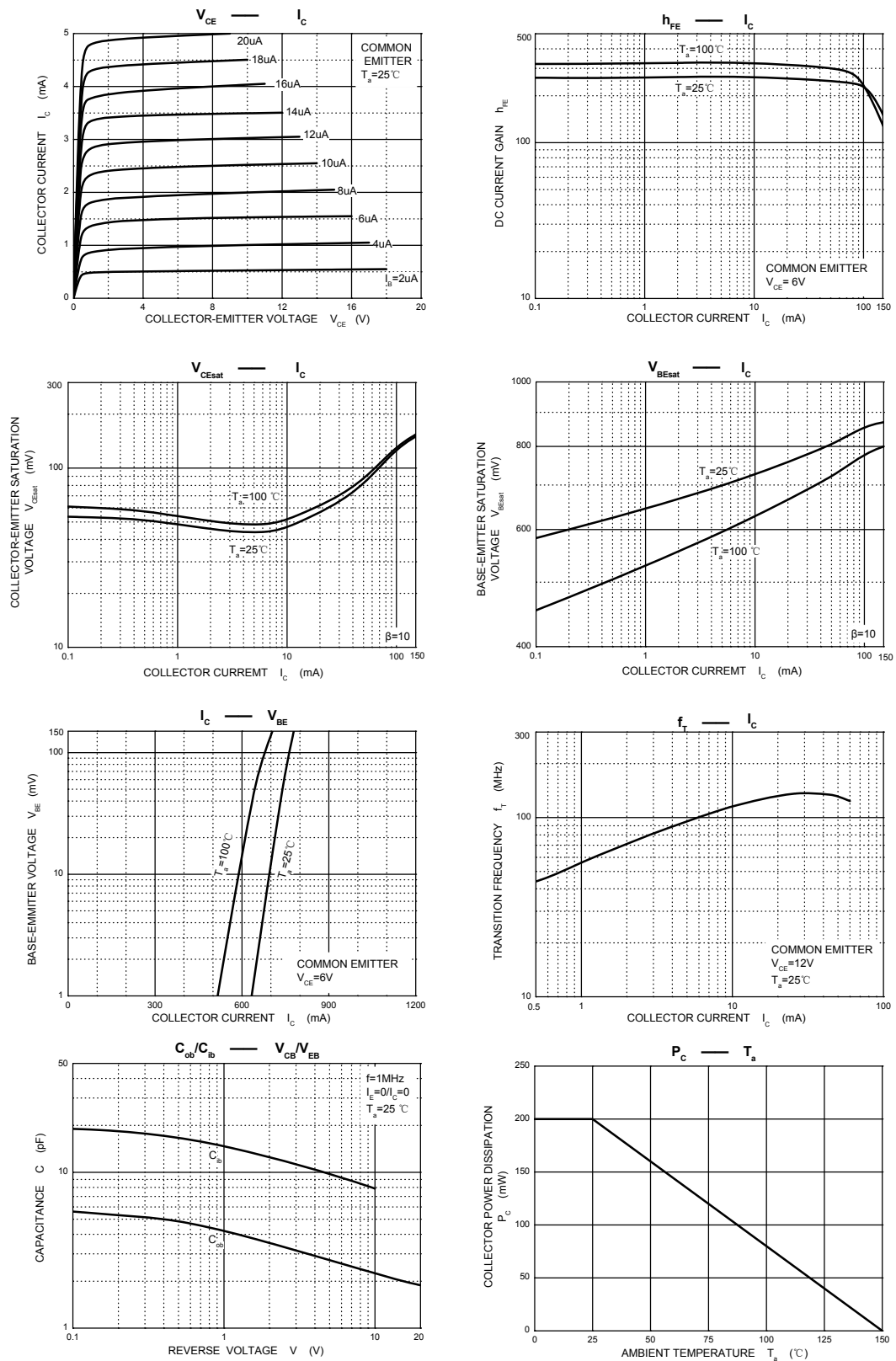
Electrical Characteristics (Ta=25℃ unless otherwise specified.)

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

h_{FE} Classification

Type	MMBTSC2412-Q	MMBTSC2412-R	MMBTSC2412-S
Range	120-270	180-390	270-560
Marking	BQ	BR	BS

Typical Characteristics



Ordering information

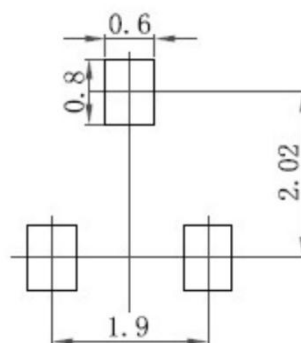
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

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



Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.