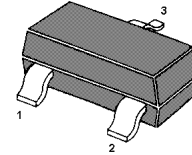


NPN Silicon Epitaxial Planar Transistor

for audio frequency general purpose amplifier applications.

The transistor is subdivided into four groups O, Y, G and L, according to its DC current gain.



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

Features

- High voltage and high current: $V_{CEO}=50V$, $I_C=150mA(max)$
- High h_{FE} : $h_{FE}=70\sim700$
- Low noise: $NF=1dB(typ.)$, $10dB(max)$
- Small package

Absolute Maximum Ratings ($T_a = 25^\circ C$)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_s	-55 to +125	$^\circ C$

Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6\text{V}$, $I_C=2\text{mA}$	O h_{FE}	70	-	140	-
	Y h_{FE}	120	-	240	-
	G h_{FE}	200	-	400	-
	L h_{FE}	350	-	700	-
Collector Cutoff Current at $V_{CB}=60\text{V}$	I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current at $V_{EB}=5\text{V}$	I_{EBO}	-	-	0.1	μA
Collector Saturation Voltage at $I_C=100\text{mA}$, $I_B=10\text{mA}$	$V_{CE(sat)}$	-	-	0.25	V
Transition Frequency at $V_{CE}=10\text{V}$, $I_C=1\text{mA}$	f_T	80	-	-	MHz
Collector Output Capacitance at $V_{CB}=10\text{V}$, $f=1\text{MHz}$	C_{ob}	-	2	3.5	pF
Noise Figure at $V_{CE}=6\text{V}$, $I_C=0.1\text{mA}$, $f=1\text{KHz}$, $R_g=10\text{K}\Omega$	NF	-	1	10	dB



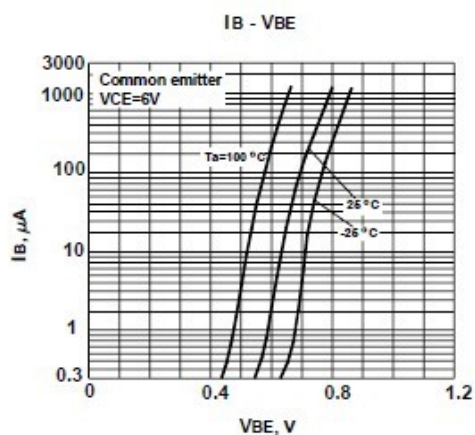
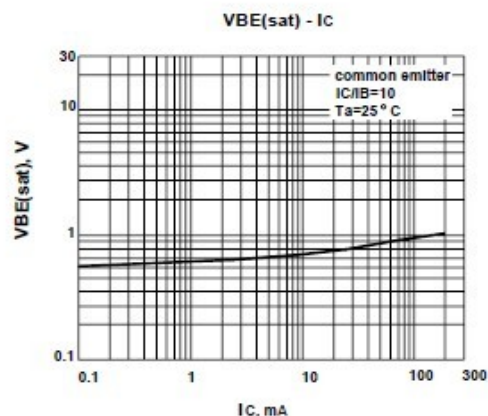
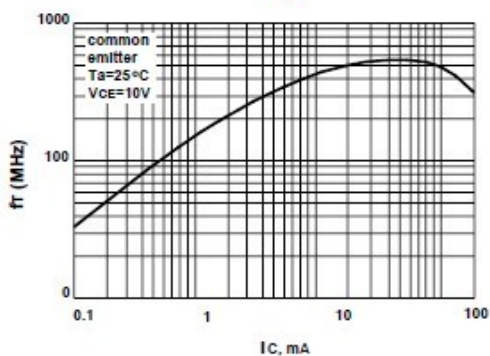
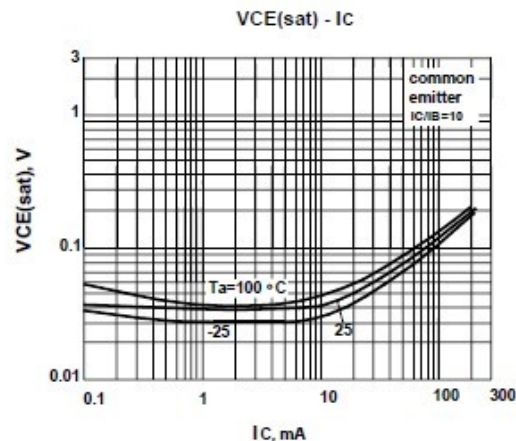
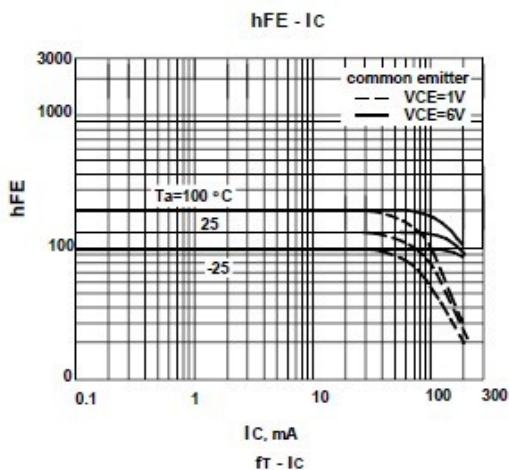
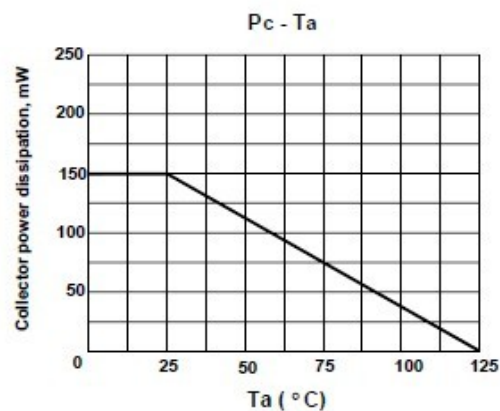
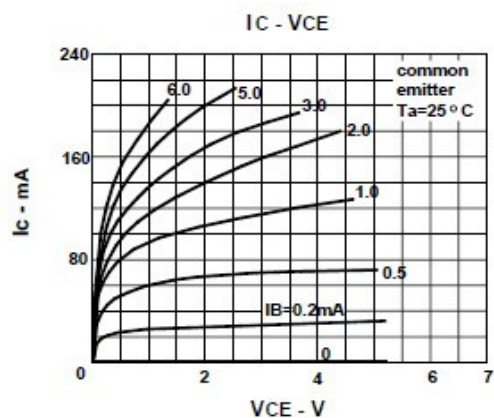
CHINA BASE
INTERNATIONAL

SOT-23



MMBTSC2712

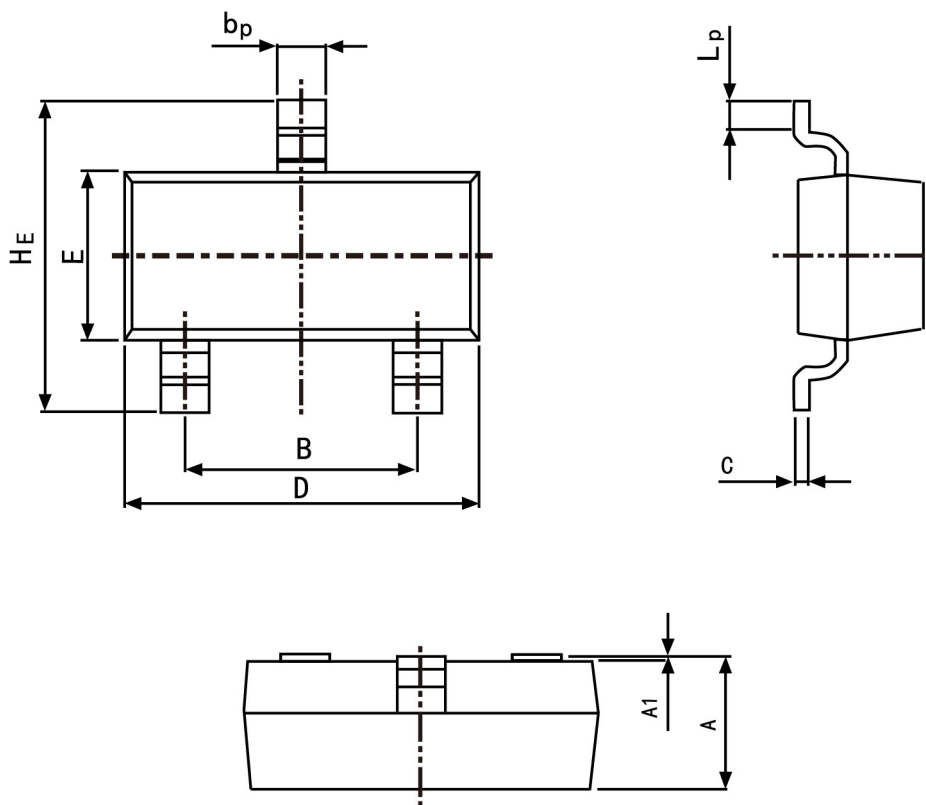
www.china-base.com.hk



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
bp	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
Lp	0.20	0.50