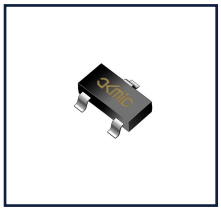
Features

- Audio Frequency General Purpose Amplifier Applications
- Low Noise: NF=1 dB (Typ),10dB(MAX)
- Complementary to 2SA1162



SOT23

Absolute Maximum Ratings(T_A=25℃)

Symbol	Parameter	Value	Uniat
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	0.15	A
P_C	Collector Power Dissipation	150	mW
T_J,T_{stg}	Operation Junction And Storage Temperature Range	-55～+150	℃

Electrical Characteristics (T_A=25℃ unless otherwise specified)

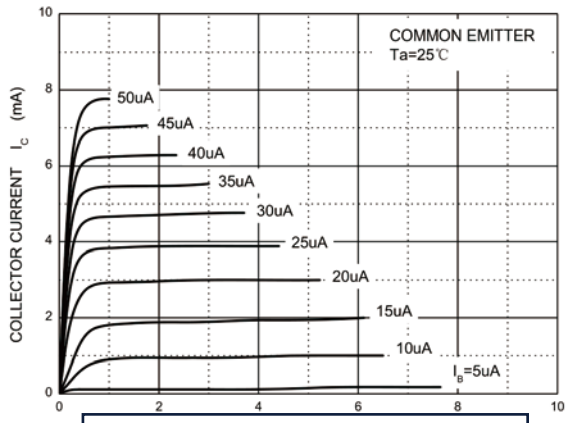
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=100μA, I_E=0	60			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA, I_B=0	50			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=100μA, I_C=0	5			V
I_{CBO}	Collector cut-off current	V_{CB}=60V, I_E=0			0.1	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V, I_C=0			0.1	μA
h_{FE}	DC current gain	V_{CE}=6V, I_C=2mA	70		700	
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=100mA, I_B=10mA		0.1	0.25	V
f_T	Transition frequency	V_{CE}=10V,I_C=1mA	80			MHz
C_{ob}	Collector output capacitance	V_{CB}=10V,I_E=0,f=1MHz		2.0	3.5	pF
NF	Noise Figure	V_{CE}=6V,I_C=0.1mA,f=1kHz,Rg=10kΩ		1.0	10	dB

Ordering information

Product ID	Pack	Naming rule	Marking	hFE(1)	Qty(PCS)
2SC2712	SOT23	2SC2712 产品名称 product name	LG	100-300	3000
			LY	200-450	

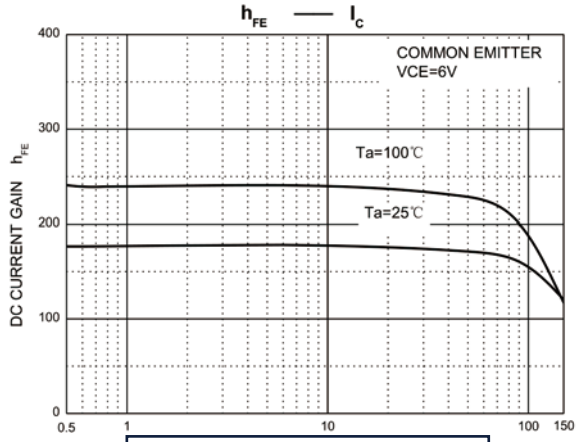
Typical Characteristics

Static Characteristic



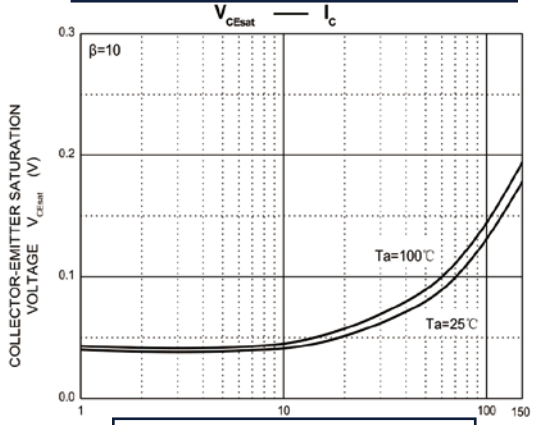
COLLECTOR-EMITTER VOLTAGE VCE(V)

h_{FE} — I_C



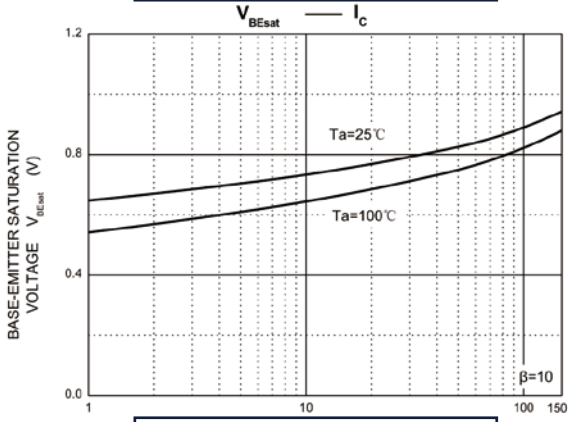
COLLECTOR CURRENT Ic(mA)

V_{CEsat} — I_C



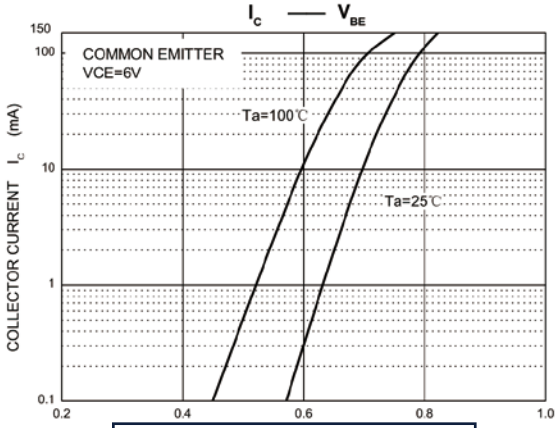
COLLECTOR CURRENT Ic(mA)

V_{BEsat} — I_C



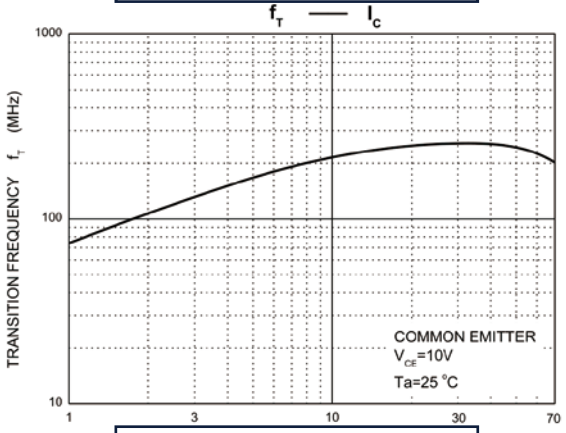
COLLECTOR CURRENT Ic(mA)

I_C — V_{BE}



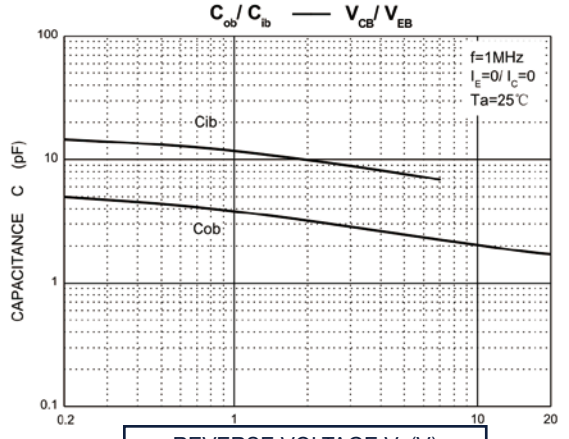
BASE-EMMITER VOLTAGE VBE(V)

f_T — I_C



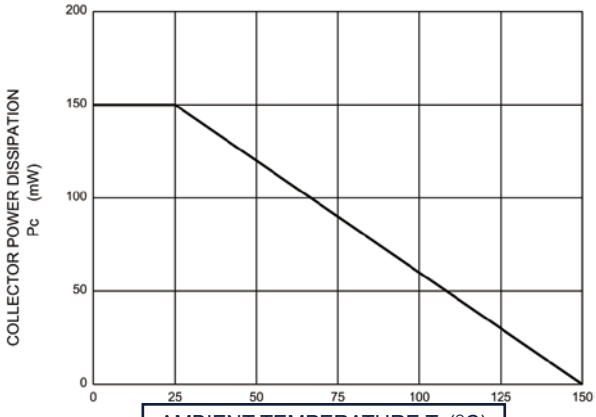
COLLECTOR CURRENT Ic(mA)

C_{ob} / C_{ib} — V_{CB} / V_{EB}



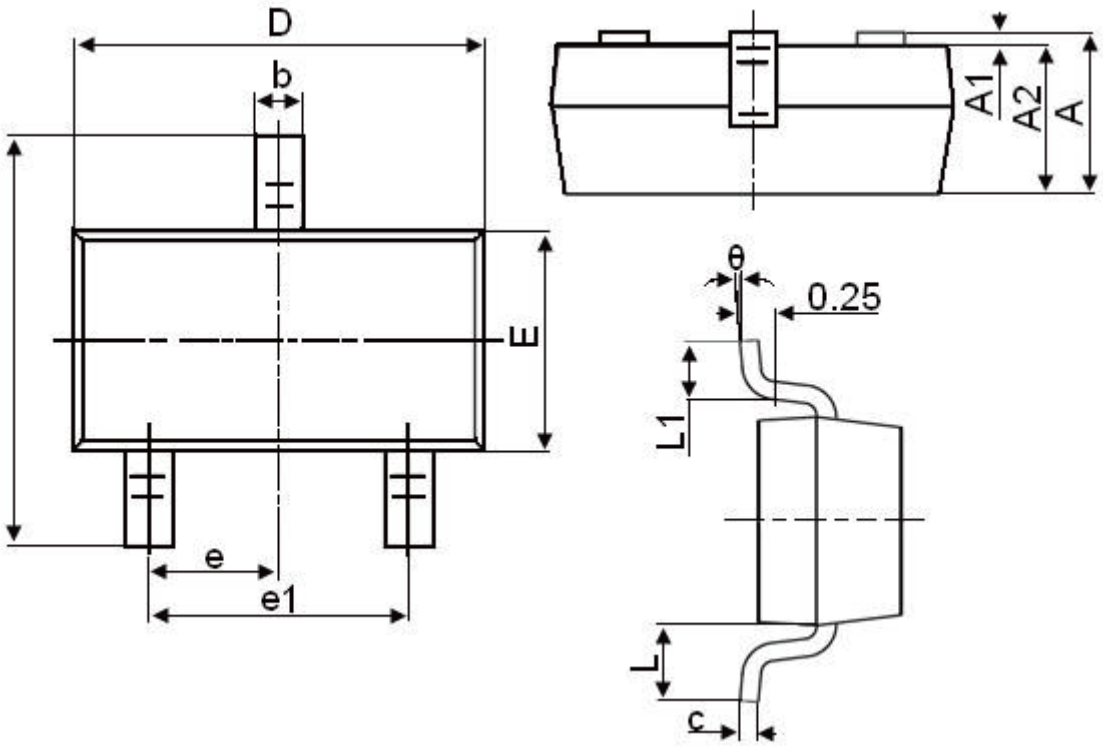
REVERSE VOLTAGE VR(V)

Pc — Ta



AMBIENT TEMPERATURE Ta(°C)

SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	Min	Max
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°