

#### **Features**

Collector Current: I<sub>C</sub>=0.15A

• Power Dissipation of 150mw



**SOT-23** 

#### **Package Marking and Ordering Information**

Product ID	Pack	Qty(PCS)
2SC2712-GR,Lf(T	SOT-23	3000



# Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V <sub>CBO</sub>	60	٧
Collector-Emitter Voltage	V <sub>CEO</sub>	50	٧
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	I <sub>c</sub>	150	mA
Collector Power Dissipation	P <sub>C</sub>	150	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55∼+150	°C

## Classifiction Of hFE

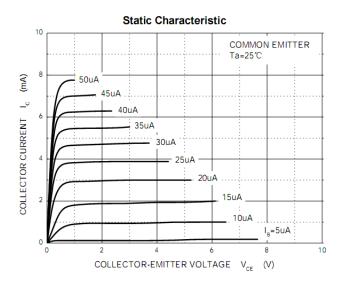
Rank	0	Y	GR	BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LG	LL

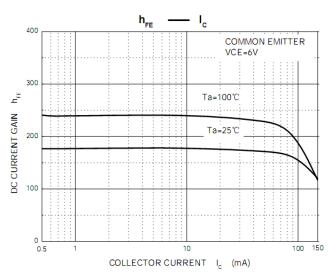


# Electrical Characteristics (Ta=25°C unless otherwise specified)

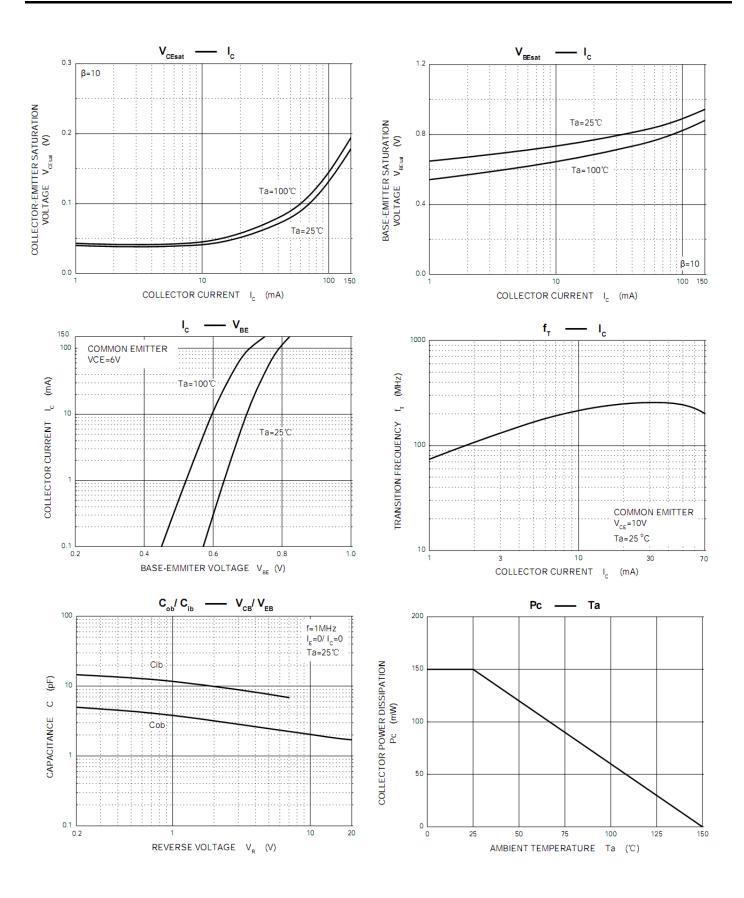
Parameter	Symbol	Test conditions	Min	Тур	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> =0	60			<b>V</b>
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1mA ,I <sub>B</sub> =0	50			<b>V</b>
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> =0	5			٧
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 60 V, I <sub>E</sub> =0			0.1	μΑ
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			0.1	μΑ
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =10mA	70		700	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> =10mA		0.1	0.25	٧
Transition frequency	f⊤	V <sub>CE</sub> =10V, I <sub>C</sub> = 1mA	80			MHz
Output capacitance	Cob	V <sub>CB</sub> =10V, I <sub>E</sub> =0,f=1 MHz		2.0	3.5	pF
Noise Figure	NF	$V_{CE}$ =6 $V$ , $I_{C}$ =0.1 $m$ A, $f$ =1 $k$ Hz, Rg=10 $k$ $\Omega$		1.0	10	dB

## **Typical Characteristics**



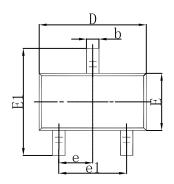


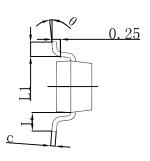


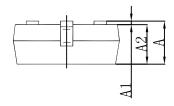




# **SOT-23 Package Outline Dimensions**

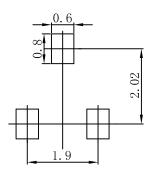






Symbol	Dimensions	In Millimeters	Dimensions In Inches		
	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950 TYP		0.037 TYP		
e1	1.800	2.000	0.071	0.079	
L	0.550 REF		0.022 REF		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

## **SOT-23 Suggested Pad Layout**



#### Note:

- 1. Controlling dimension: in millimeters.
- 2.General tolerance:± 0.05mm.
  3.The pad layout is for reference purposes only.



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