General Purpose Transistors

NPN Silicon

L2SC5343QLT1G Series
S-L2SC5343QLT1G Series

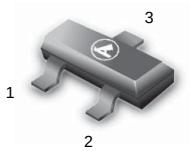
FEATURE

- Excellent h_{FE} linearity

  :h_{FE}(2)=100(Typ) at V_{CE}=6V,I_C=150Ma

  :h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95(Typ).

- Low noise:NF=1Db(Typ).at f=1KHz.
- We declare that the material of product compliance with RoHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



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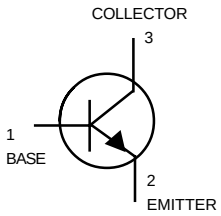
DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
L2SC5343QLT1G S-L2SC5343QLT1G	7Q	3000/Tape&Reel
L2SC5343QLT3G S-L2SC5343QLT3G	7Q	10000/Tape&Reel
L2SC5343RLT1G S-L2SC5343RLT1G	7R	3000/Tape&Reel
L2SC5343RLT3G S-L2SC5343RLT3G	7R	10000/Tape&Reel
L2SC5343SLT1G S-L2SC5343SLT1G	7S	3000/Tape&Reel
L2SC5343SLT3G S-L2SC5343SLT3G	7S	10000/Tape&Reel



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	50	V
Collector-Base Voltage	V_{CBO}	60	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector current-continuoun	I_C	150	mA
Collector current-continuoun	I_B	50	mA
Collector Dissipation	P_C	200	mW
Junction and Storage Temperature	T_j, T_{stg}	-55~150	℃

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=6V,I_C=1mA	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA		0.1	0.25	V
Transition frequency	f_T	V_{CE}=10V, I_C= 1mA	80			MHz
Output capacitance	C_{ob}	V_{CB}=10V, I_E=0,f=1kHz			3.5	pF
Noise Figure	NF	V_{CE}=6V,I_C=0.1mA,f=1kHz			10	dB

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	120-270	180-390	270-560

Electrical Characteristic Curves

Fig. 1 P_C –T_a

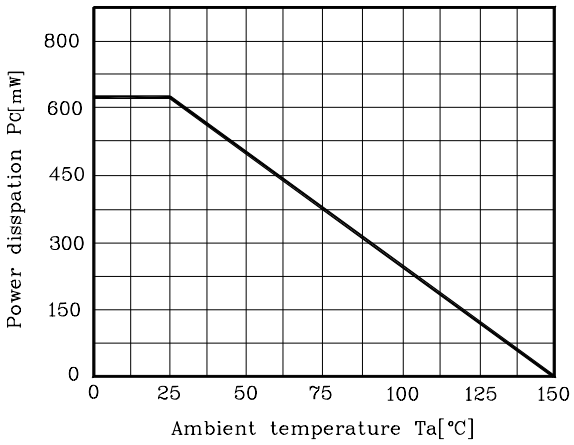


Fig. 2 I_C -V_{BE}

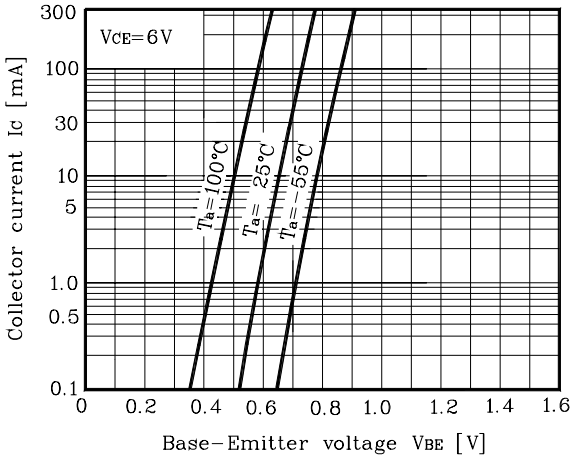


Fig. 3 I_C -V_{CE}

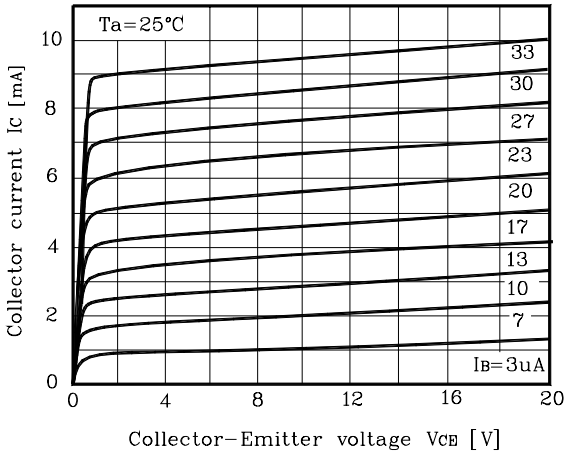


Fig. 4 h_{FE} -I_C

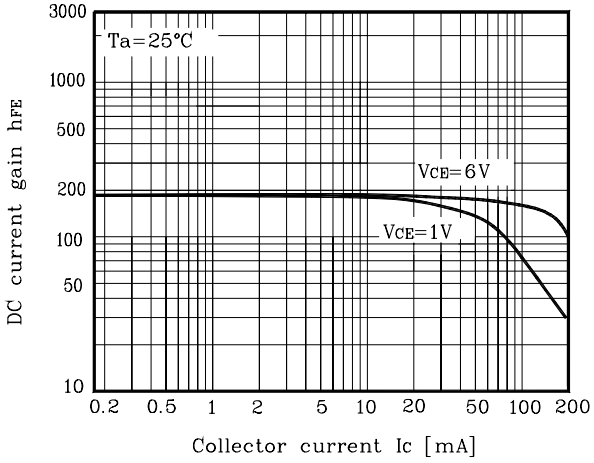
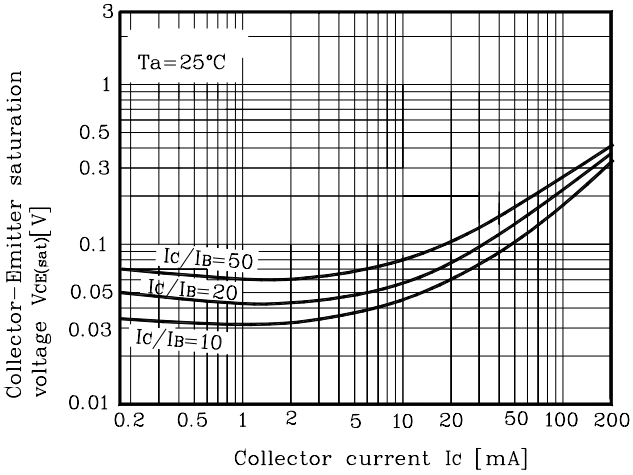


Fig. 5 $V_{CE(sat)}$ -I_C



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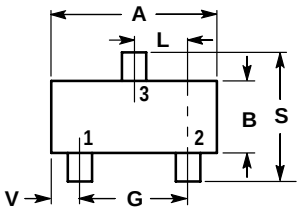

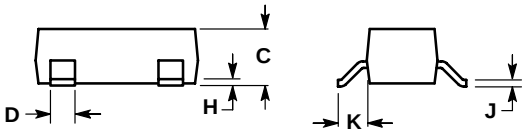

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

PIN 1. BASE
2. EMITTER
3. COLLECTOR