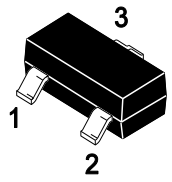
LBSS5240LT1G
S-LBSS5240LT1G

General Purpose Transistors PNP Silicon

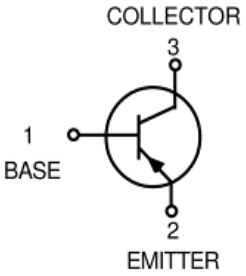
1. FEATURES



SOT23

- Low collector-emitter saturation voltage
- High current capability
- Improved device reliability due to reduced heat generation
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2.APPLICATIONS



- Supply line switching circuits
- Battery management applications
- DC/DC converter applications
- Strobe flash units
- Heavy duty battery powered equipment (motor and lamp drivers).

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBSS5240LT1G	ZF	3000/Tape&Reel
LBSS5240LT3G	ZF	10000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Collector-Emitter Voltage	VCEO	-40	V
Collector-Base voltage	VCBO	-40	V
Emitter-Base Voltage	VEBO	-5	V
Collector current-continuoun	IC	-2	A
Power dissipation	PD	0.3	W
Junction temperature	TJ	150	℃
Storage temperature	TSTG	-50~+150	℃

5. THERMAL CHARACTERISTICS

Parameter		Symbol	Value	Unit
Thermal resistance from junction to ambient in free air	(Note 1)	RθJA	417	K/W
	(Note 2)		260	K/W

1.Device mounted on a printed-circuit board,single sided copper,tinplated and standard footprint.

2.Device mounted on a printed-circuit board,single sided copper,tinplated and mounted pad for collector 1 cm².

6. ELECTRICAL CHARACTERISTICS (Ta= 25ºC)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector-Base cut-off current (IE = 0, VCB = -30 V)	ICBO	-	-	-100	nA
Emitter-Base cut-off current (IC = 0, VBE = -4 V)	IEBO	-	-	-100	nA
DC current gain (VCE = -2 V,IC = -100 mA) (VCE = -2 V,IC = -500 mA) (VCE = -2 V,IC = -1 A) (VCE = -2 V,IC = -2 A)	hFE	 300 260 210 100	 - - - -	 - - - -	
Collector-Emitter saturation voltage (IC = -100 mA, IB = -1 mA) (IC = -500 mA, IB = -50 mA) (IC = -750 mA, IB = -15 mA) (IC = -1 A, IB = -50 mA) (IC = -2 A, IB = -200 mA)	VCE(sat)	 - - - - -	 - - - - -	 -100 -110 -225 -225 -350	mV
Base-Emitter saturation voltage (IC = -2 A,IB = -200 mA)	VBE(sat)	-	-	-1.1	V
Base-Emitter turn on voltage (IC = -100 mA,VCE = -2 V)	VBE(on)	-	-	-0.75	V
Transition frequency (IC = -100 mA,VCE = -10 V, f = 100 MHz)	fT	100	-	-	MHz
Collector capacitance (IE = Ie = 0,VCB = -10 V,f = 1 MHz)	Cc	-	-	28	pF

7. ELECTRICAL CHARACTERISTICS CURVES(Ta=25℃)

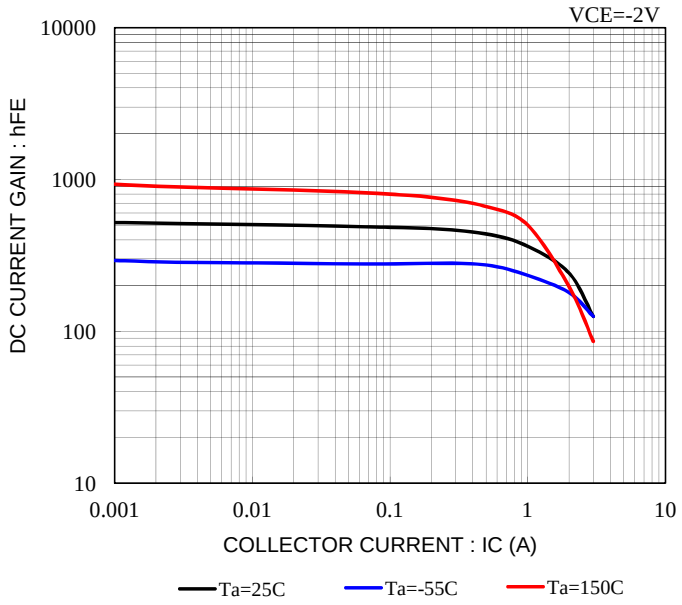


Fig.1 DC CURRENT GAIN VS.COLLECTOR CURRENT

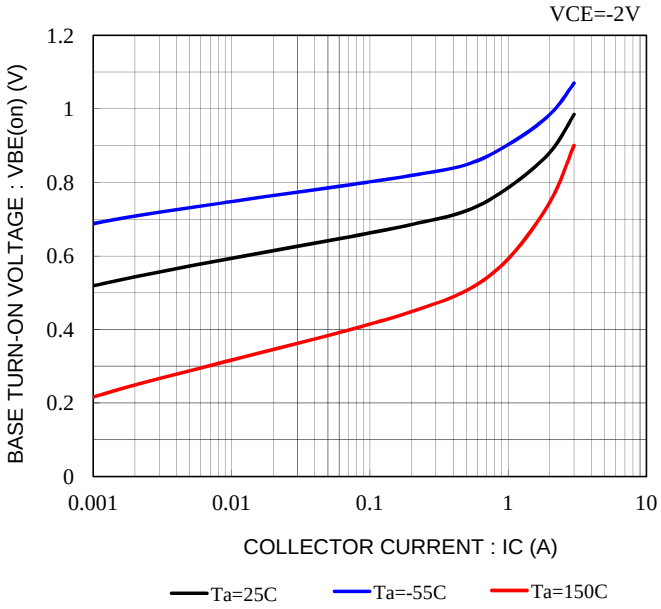


Fig.2 BASE-EMITTER TURN-ON VOLTAGE VS.COLLECTOR CURRENT

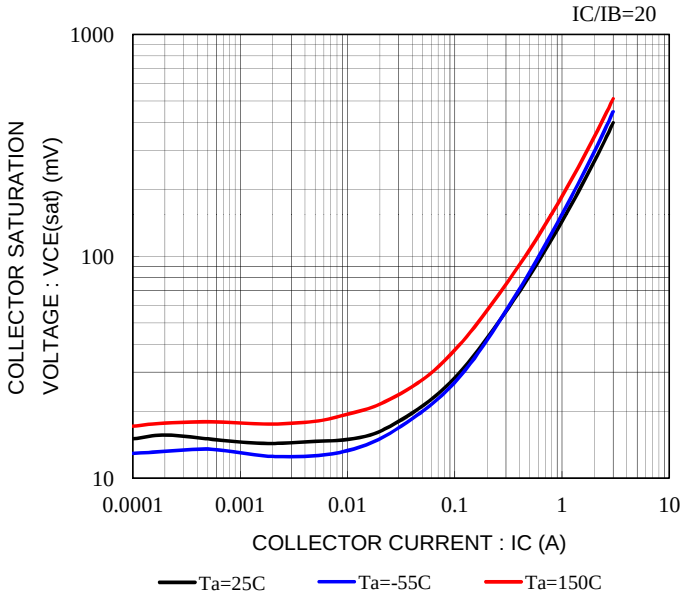


Fig.3 COLLECTOR-EMITTER SATURATION VOLTAGE VS.COLLECTOR CURRENT

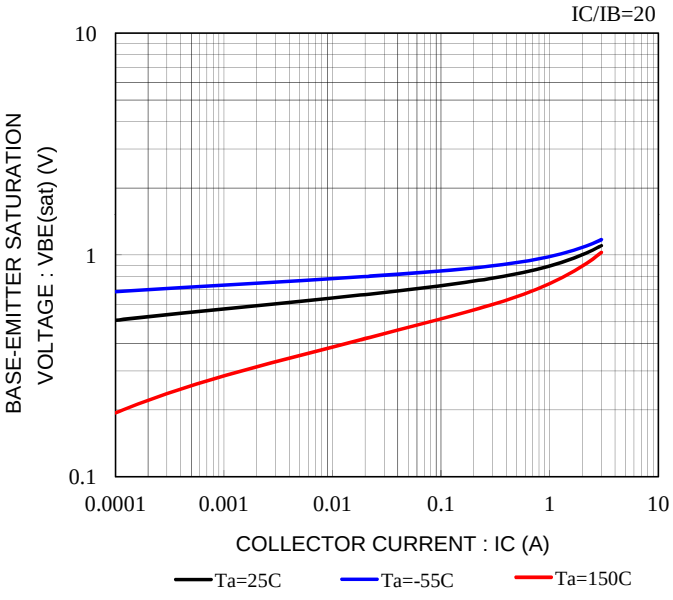


Fig.4 BASE-EMITTER SATURATION VOLTAGE VS.COLLECTOR CURRENT

7. ELECTRICAL CHARACTERISTICS CURVES(Ta=25℃)(Con.)

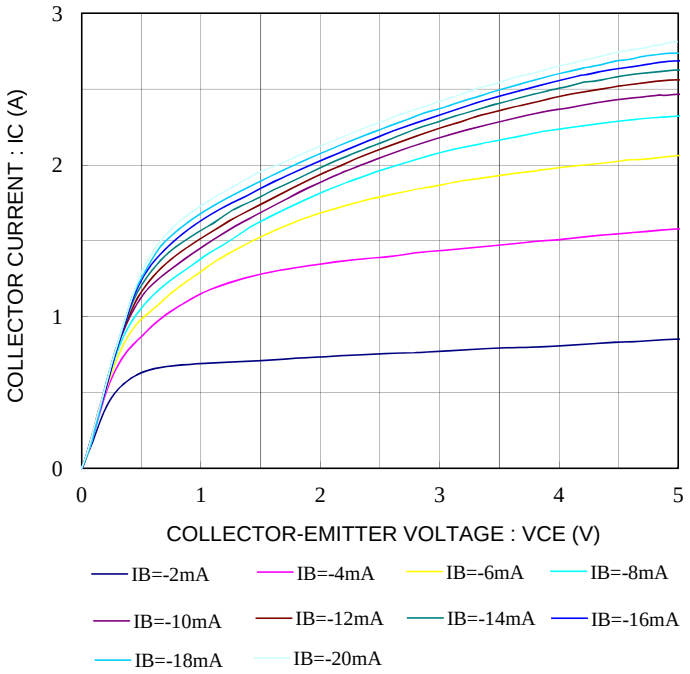


Fig.5 COLLECTOR CURRENT VS.COLLECTOR-EMITTER SATURATION VOLTAGE

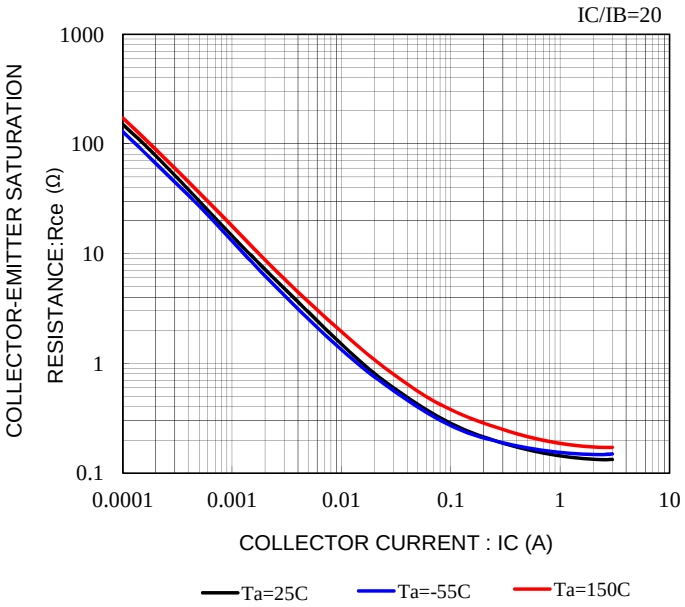
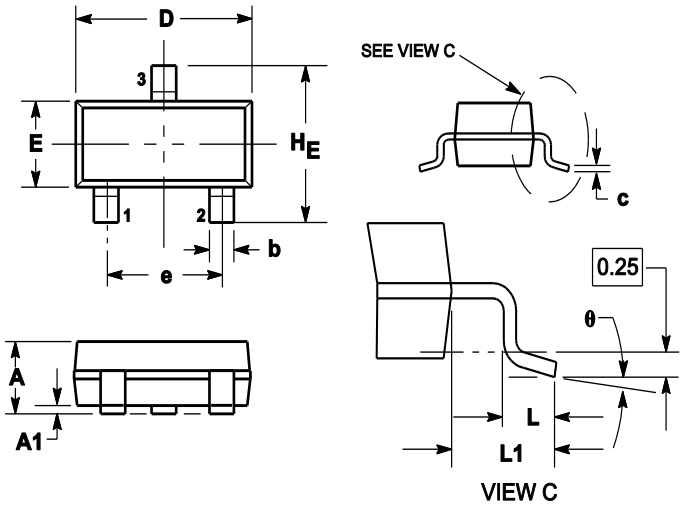


Fig.6 COLLECTOR-EMITTER SATURATION RESISTANCE VS.COLLECTOR CURRENT

8.OUTLINE AND DIMENSIONS



Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
H_E	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

9.SOLDERING FOOTPRINT