

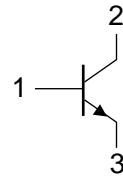
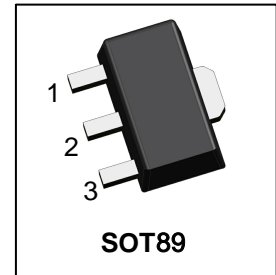
# LBSS4350SY3T1G

## S-LBSS4350SY3T1G

### NPN TRANSISTOR

#### 1. FEATURES

- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- 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. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBSS4350SY3T1G	A3	1000/Tape&Reel

#### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	50	V
Collector–Base Voltage	VCBO	60	V
Emitter–Base Voltage	VEBO	6	V
Collector Current	IC	3	A
Collector Current(Pulse)	ICP	6	A

#### 4. THERMAL CHARACTERISTICS

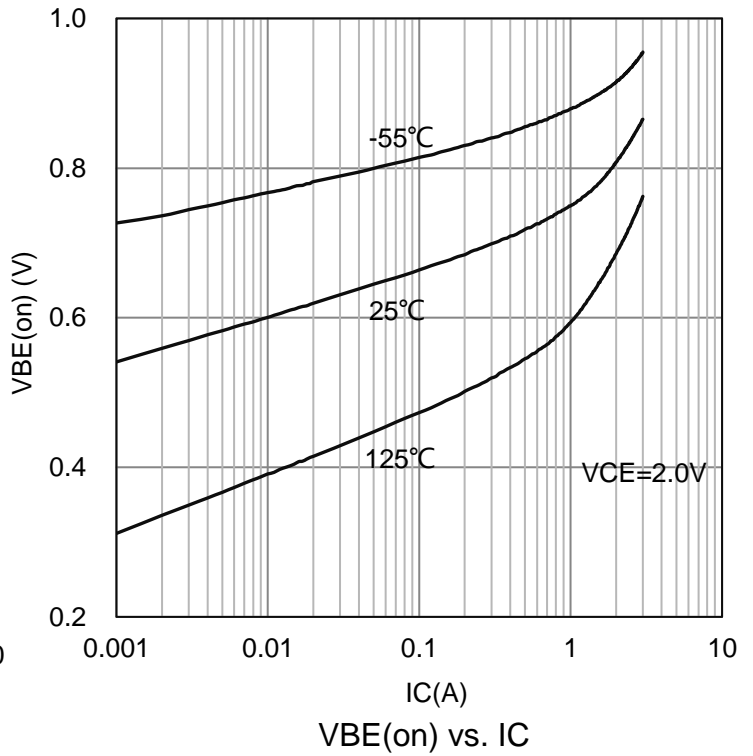
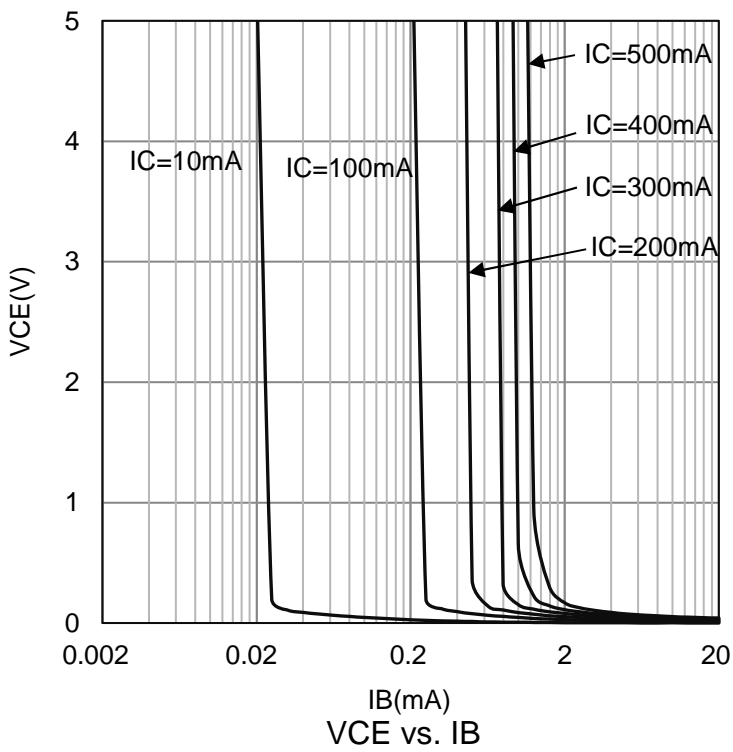
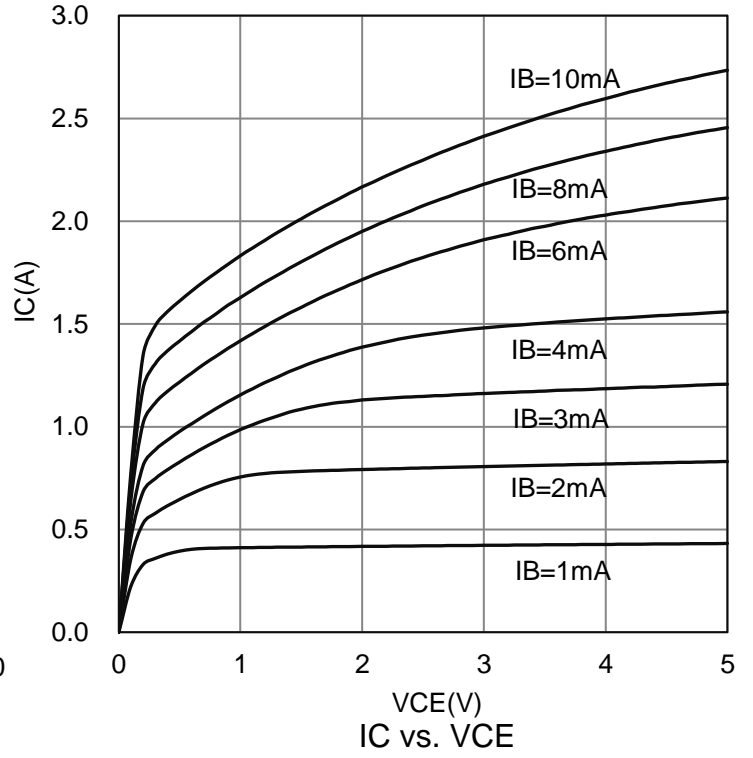
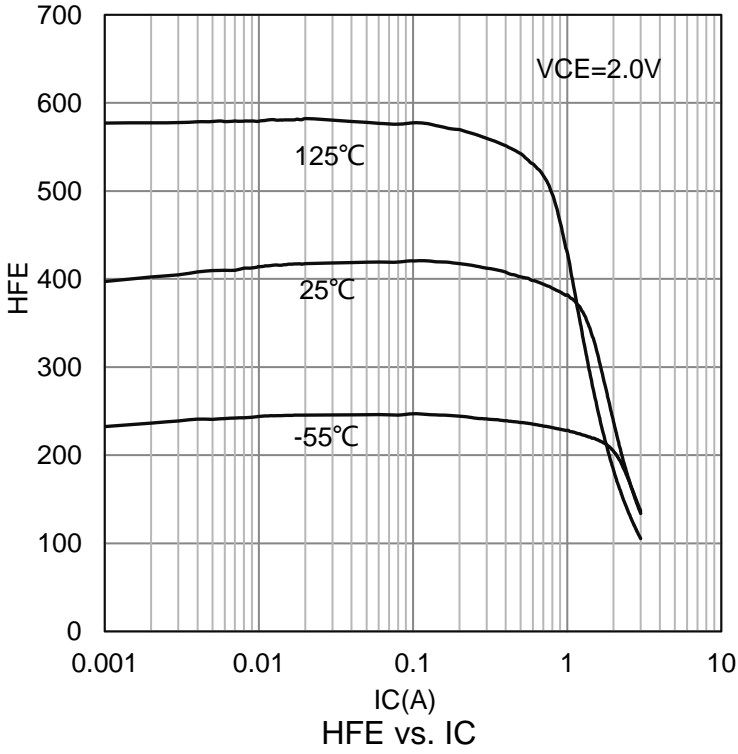
Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	550 4.4	mW mW/°C
Thermal Resistance, Junction–to–Ambient	RθJA	225	°C/W
Junction and Storage temperature	TJ,Tstg	-55~+150	°C

1.PCB Size:30.0mm×25.0mm×1.6mm,FR-4 Board;

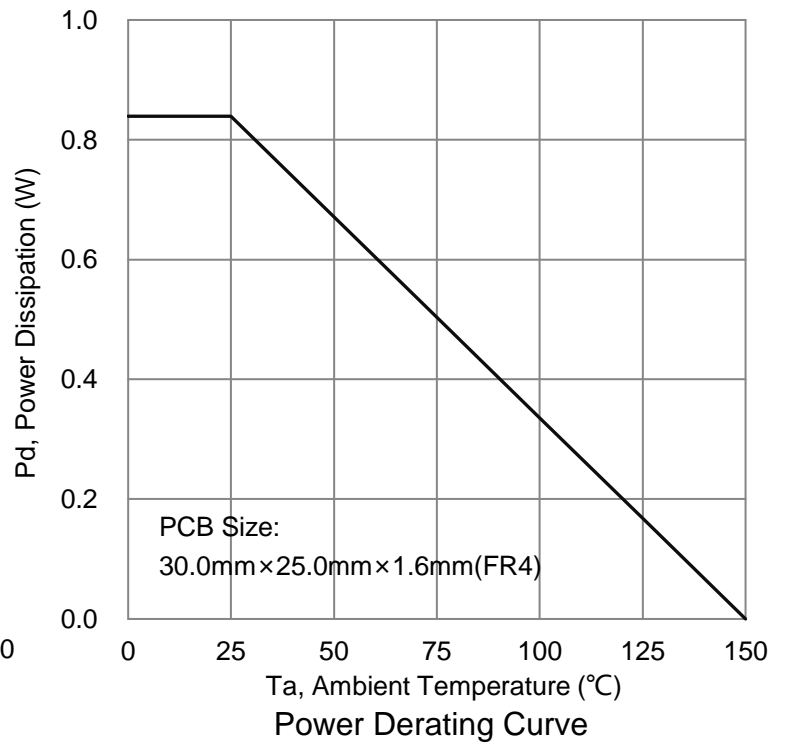
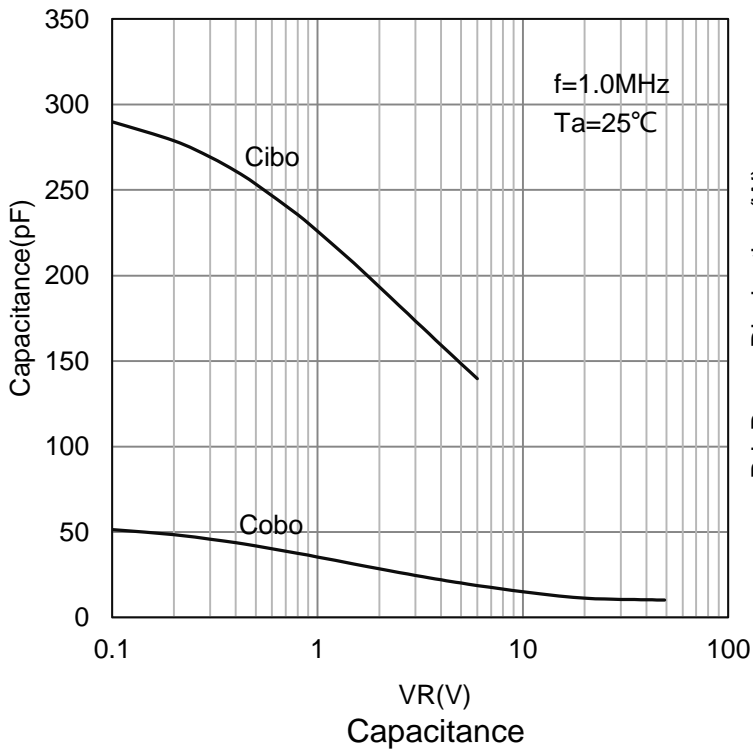
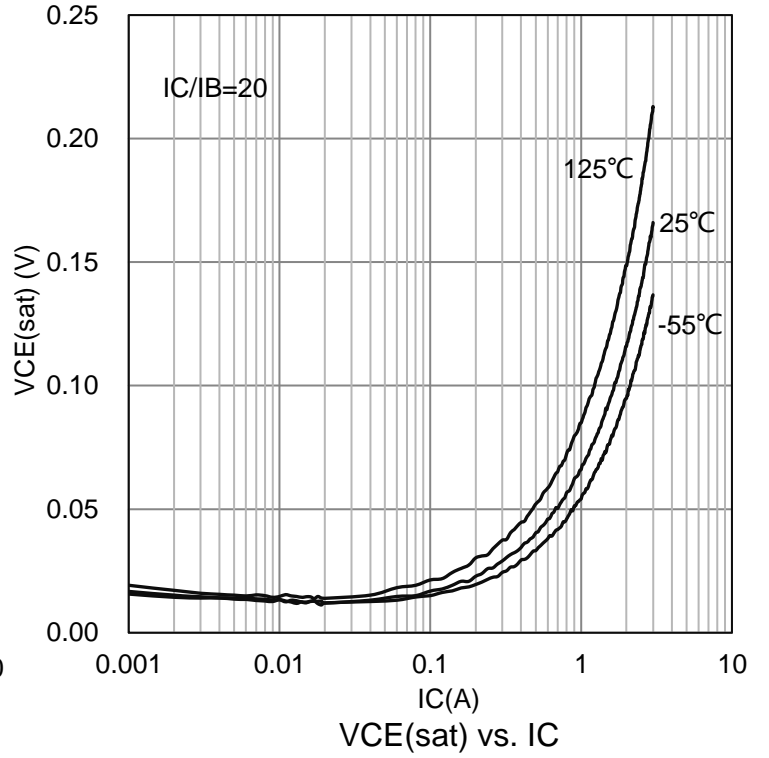
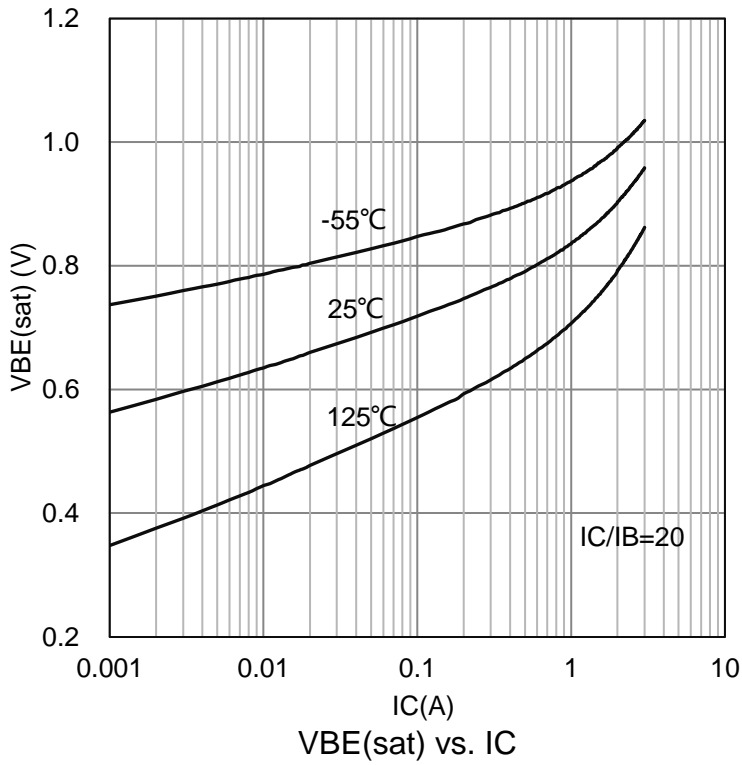
**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

Characteristic		Symbol	Min.	Typ.	Max.	Unit
Collector Cutoff Current (VCB =40V, IE =0 )		ICBO	-	-	1	μA
Emitter Cut-off Current (VEB =4V, IC =0)		IEBO	-	-	1	μA
DC Current Gain (VCE =2V, IC =100mA) (VCE =2V, IC =3A)		HFE	200 35	- -	500 -	
Collector–Emitter Saturation Voltage (IC =2A, IB =100mA)		VCE(sat)	-	0.19	0.5	V
Base–Emitter Saturation Voltage (IC =2A, IB =100mA)		VBE(sat)	-	0.94	1.2	V
Transition Frequency (VCE =10V, IC =50mA, f=100MHz)		fT	-	148	-	MHz
Output Capacitance (VCB = 10 V, f = 1.0 MHz, IE=0)		Cob	-	15	-	pF
Delay Time	(VCC=15V,VBE=-2V, IC=1A,IB1=0.1A)	td	-	10	-	ns
Rise Time		tr	-	9	-	
Storage Time	(VCC=15V,IC=1A, IB1=IB2=0.1A)	ts	-	439	-	
Fall Time		tf	-	73	-	

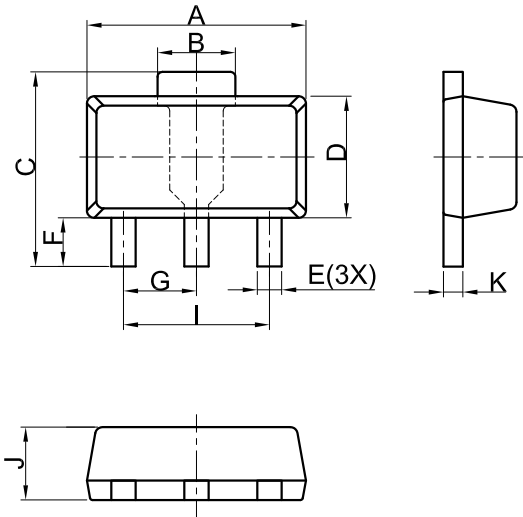
6.ELECTRICAL CHARACTERISTICS CURVES



6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



### 7.OUTLINE AND DIMENSIONS

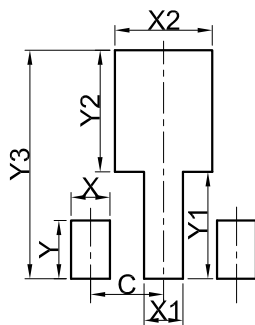


SOT89			
DIM	MIN	NOR	MAX
A	4.30	4.50	4.70
B	1.40	1.60	1.80
C	3.90	4.00	4.25
D	2.30	2.50	2.70
E	0.40	0.50	0.58
F	0.90	1.00	1.20
G	1.50 BSC		
I	3.00 BSC		
J	1.40	1.50	1.60
K	0.34	0.40	0.50
All Dimensions in mm			

#### GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um
4. Protrusion or Gate Burrs shall not exceed 0.10mm per side.

### 8.SOLDERING FOOTPRINT



SOT89	
DIM	(mm)
X	0.80
Y	1.20
X1	0.80
Y1	2.20
X2	2.00
Y2	2.50
C	1.50
Y3	4.70

## **DISCLAIMER**

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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