

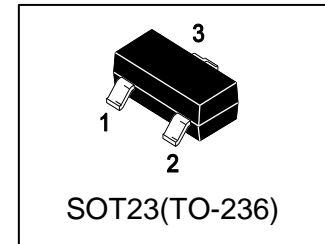
L2SA812SLT1G

S-L2SA812SLT1G

General Purpose Transistors PNP Silicon

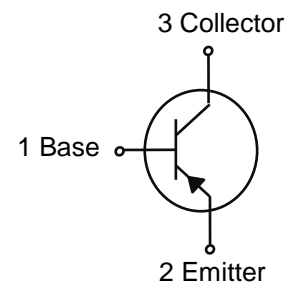
1. FEATURES

- High Voltage: $V_{CEO} = -50\text{ V}$.
- Epitaxial planar type.
- 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 |
|--------------|---------|-----------------|
| L2SA812SLT1G | M7 | 3000/Tape&Reel |
| L2SA812SLT3G | M7 | 10000/Tape&Reel |



3. MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Limits | Unit |
|--------------------------------|-----------|--------|------|
| Collector–Emitter Voltage | V_{CEO} | -50 | V |
| Collector–Base Voltage | V_{CBO} | -60 | V |
| Emitter–Base Voltage | V_{EBO} | -6 | V |
| Collector Current — Continuous | I_C | -150 | mA |

4. THERMAL CHARACTERISTICS

| Parameter | Symbol | Limits | Unit |
|---|-----------------|----------|---------------------------|
| Total Device Dissipation, FR-5 Board (Note 1) @ $T_A = 25^\circ\text{C}$ | PD | 200 | mW |
| Derate above 25°C | | 1.8 | mW/ $^\circ\text{C}$ |
| Thermal Resistance, Junction–to–Ambient(Note 1) | $R_{\theta JA}$ | 556 | $^\circ\text{C}/\text{W}$ |
| Junction and Storage temperature | T_J, T_{stg} | -55~+150 | $^\circ\text{C}$ |

1. FR-5 = 1.0×0.75×0.062 in.

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|---|----------|------|------|------|------|
| Collector–Emitter Breakdown Voltage (IC = -1.0 mA, IB = 0) | VBR(CEO) | -50 | - | - | V |
| Collector–Base Breakdown Voltage (IC = -50 μA, IE = 0) | VBR(CBO) | -60 | - | - | V |
| Emitter–Base Breakdown Voltage (IE = -50 μA, IC = 0) | VBR(EBO) | -6 | - | - | V |
| Collector-Base cut-off current (IE = 0, VCB = -50 V) | ICBO | - | - | -0.1 | μA |
| Emitter-Base cut-off current (IC = 0, VEB = -6 V) | IEBO | - | - | -0.1 | μA |
| Collector-Emitter cutoff Current (IB=0, VCE = -50V) | ICEO | - | - | -10 | μA |

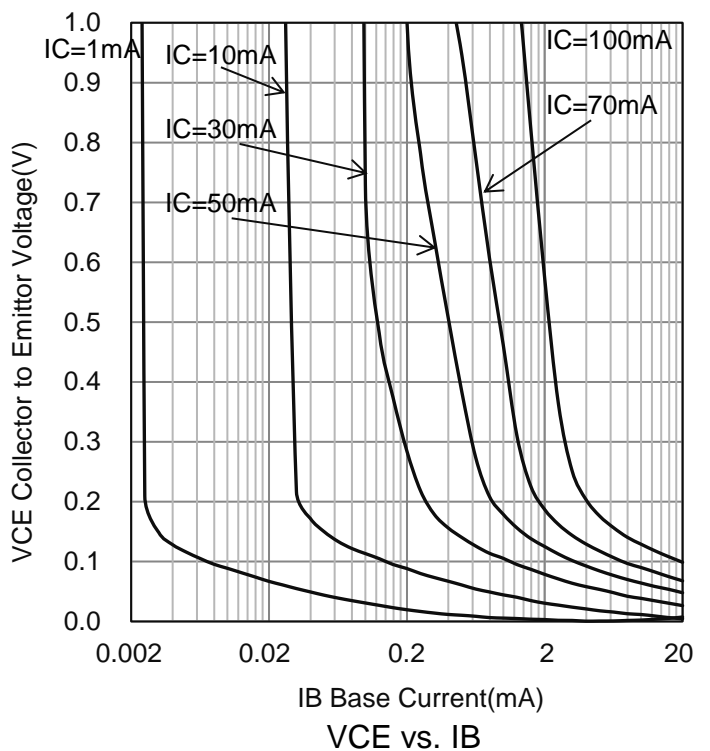
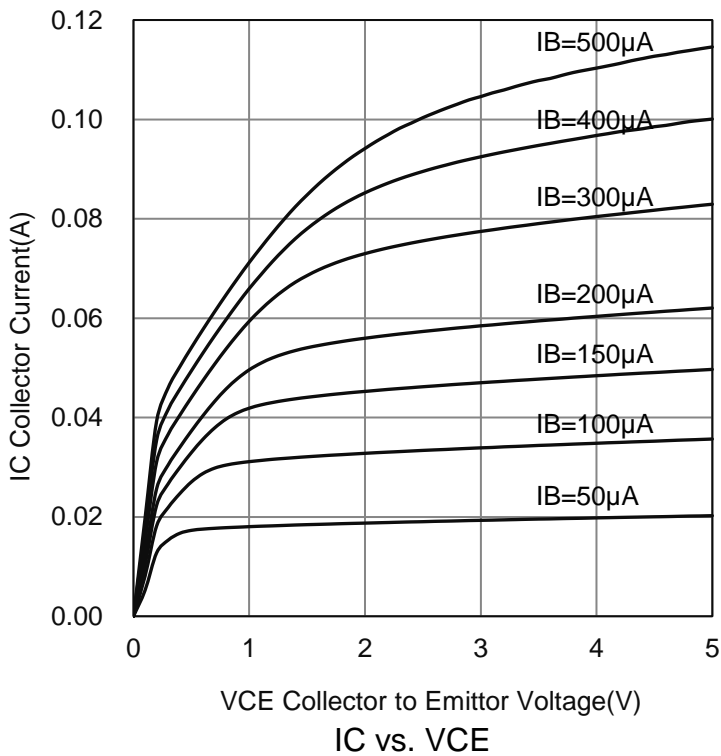
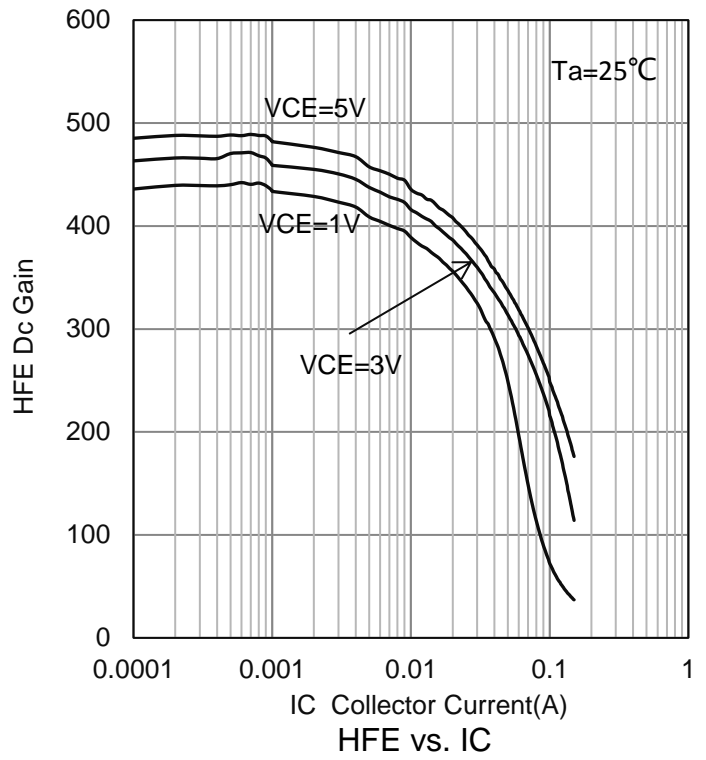
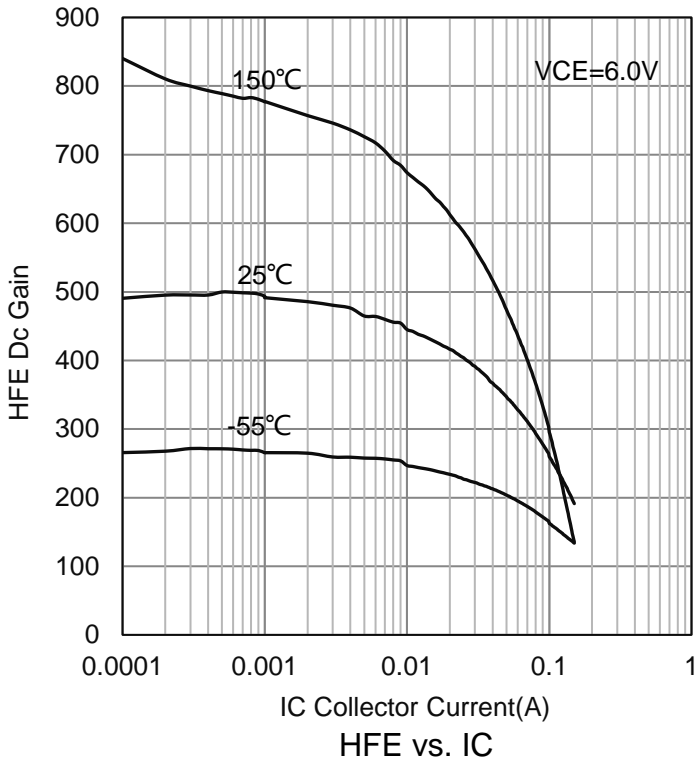
ON CHARACTERISTICS

| | | | | | |
|---|----------|-------|-------|-------|---|
| DC Current Gain (IC = - 1mA, VCE = - 6.0V) | HFE | 270 | - | 560 | |
| Collector–Emitter Saturation Voltage (IC = - 100mA, IB = - 10mA) | VCE(sat) | - | -0.18 | -0.3 | V |
| Base -Emitter On Voltage (IE = -1.0mA, VCE = - 6.0V) | VBE | -0.58 | -0.62 | -0.68 | V |

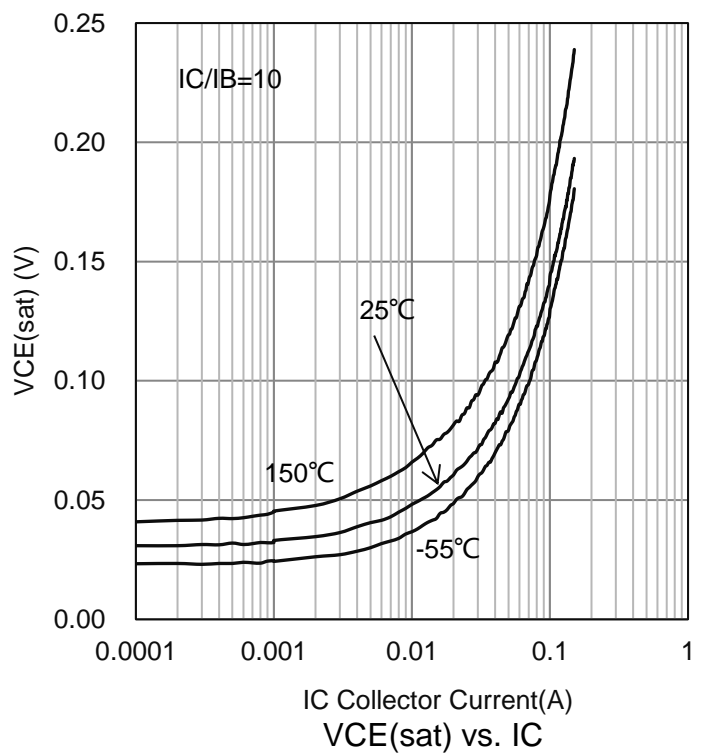
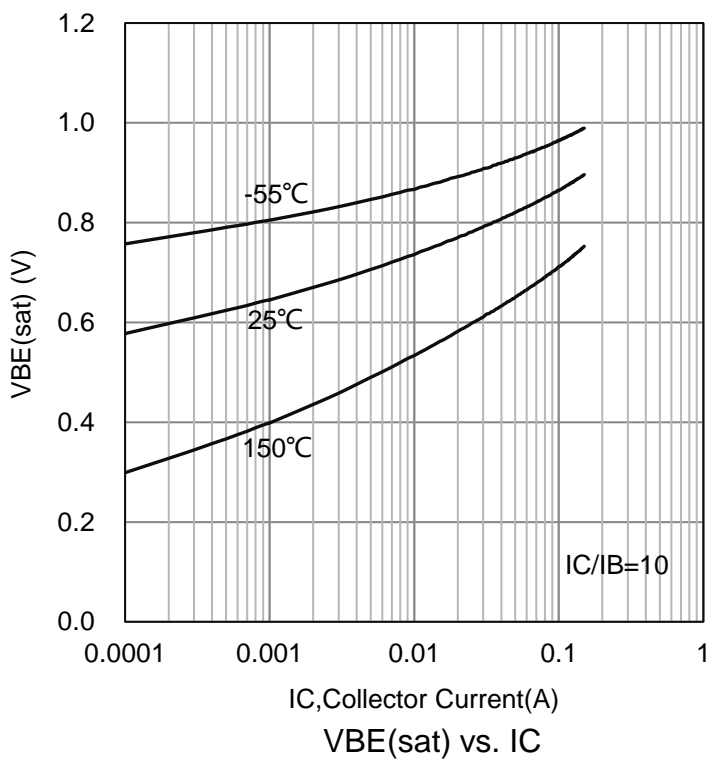
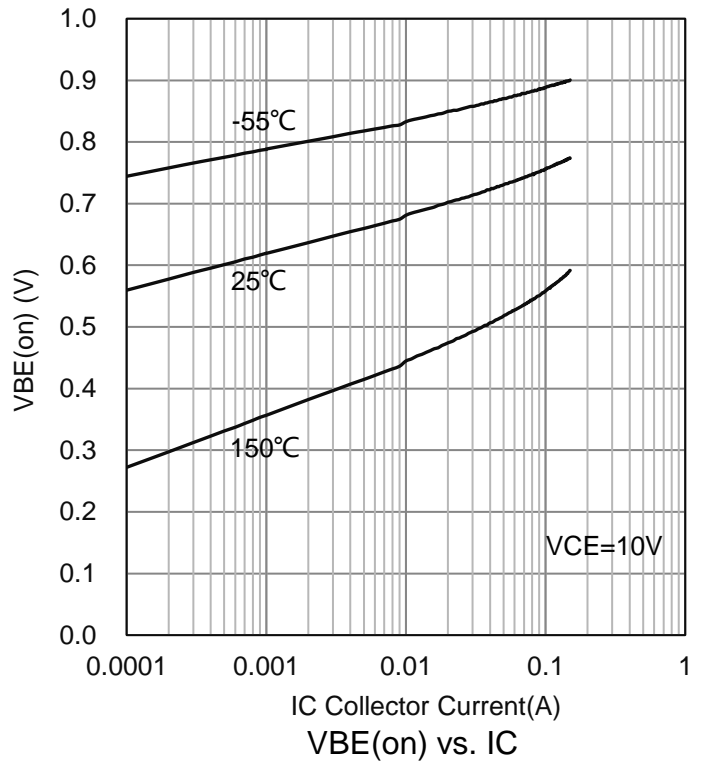
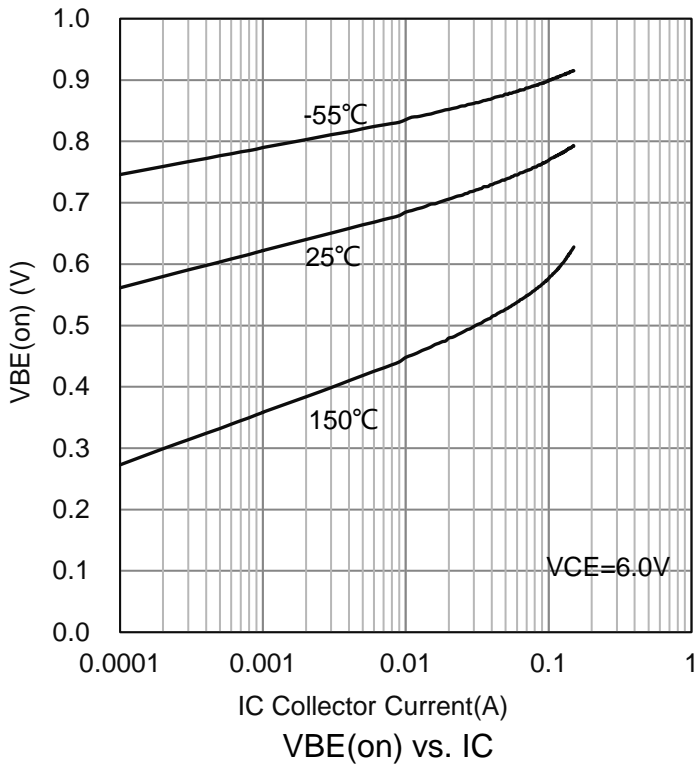
SMALL–SIGNAL CHARACTERISTICS

| | | | | | |
|---|------|---|-----|---|-----|
| Current–Gain — Bandwidth Product (VCE = - 6.0V, IE = - 10mA) | fT | - | 180 | - | MHz |
| Output Capacitance (VCE = - 10V, IE =0, f=1.0MHz) | Cobo | - | 4.5 | - | pF |

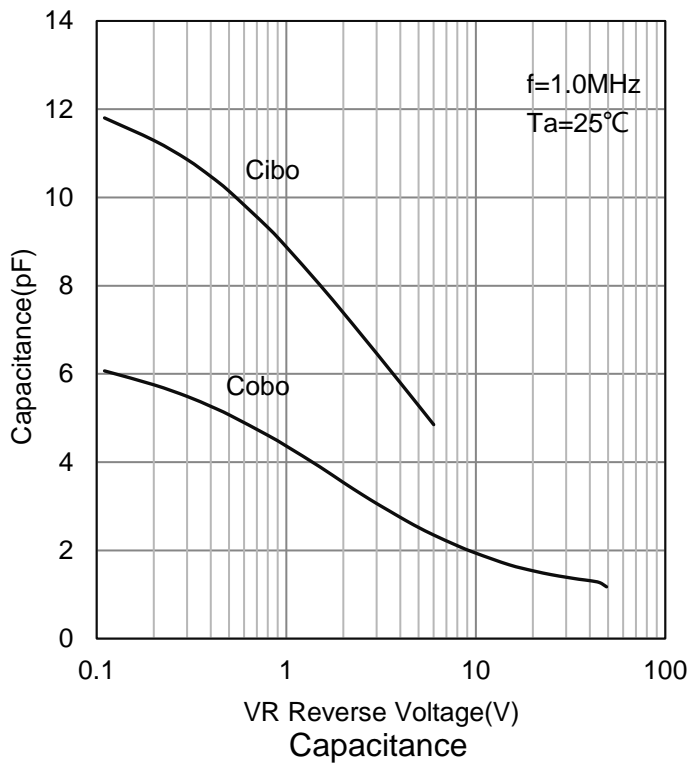
6.ELECTRICAL CHARACTERISTICS CURVES



6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



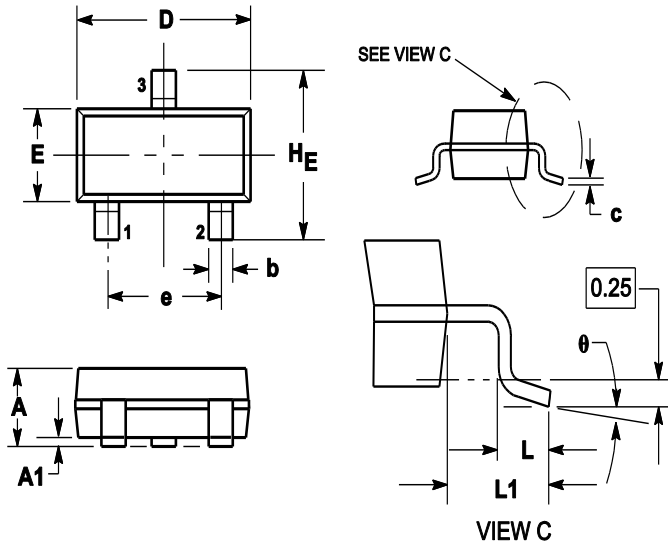
6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7. OUTLINE AND DIMENSIONS

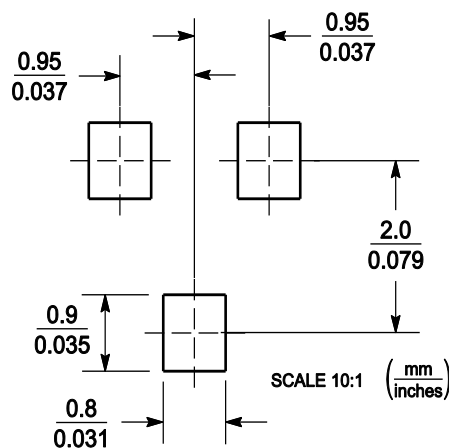
Notes:

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.



| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|------|------|--------|-------|-------|
| | 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 |
| HE | 2.10 | 2.4 | 2.64 | 0.083 | 0.094 | 0.104 |
| θ | 0° | --- | 10° | 0° | --- | 10° |

8. SOLDERING FOOTPRINT



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