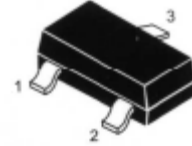


PNP digital transistor
(Built-in resistor type)

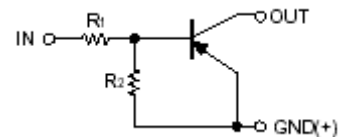
ABSOLUTE MAXIMUM RATINGS at Ta=25°C

| Characteristic | Symbol | Rating | Unit |
|----------------------------|------------------|----------|------|
| supply Voltage | V _{CC} | -50 | V |
| Input voltage | V _{IN} | -40~+6 | V |
| Output Current | I _O | -100 | mA |
| Power dissipation | P _D | -200 | mW |
| Junction Temperature Range | T _J | 150 | °C |
| Storage Temperature Range | T _{stg} | -55~+150 | °C |

Package:SOT-23



| | | | |
|-------|---|---|---|
| PIN: | 1 | 2 | 3 |
| STYLE | | | |
| NO.1 | B | E | C |



ELECTRICAL CHARACTERISTICS at Ta=25°C

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Conditions |
|--------------------------------|--------------------------------|------|-----|------|------|---|
| Input Voltage | V _{I(off)} | -0.5 | | | V | I _O =-100uA V _{CC} =-5V |
| | V _{I(on)} | | | -2 | V | I _O =-5mA V _O =-0.3V |
| Output voltage | V _{O(on)} | | | -0.3 | V | I _O =-10mA, I _I =-0.5mA |
| Input current | I _I | | | 0.88 | mA | V _I =-5V |
| Output current | I _{O(off)} | | | -0.5 | uA | V _{CC} =-50V V _I =0V |
| DC Current Gain | H _{fe} | 80 | | | | V _{CC} =-5V I _O =-10mA |
| Input resistance | R ₁ | 7 | 10 | 13 | KΩ | |
| Resistance ratio | R ₂ /R ₁ | 3.7 | 4.7 | 5.7 | | |
| Current Gain-Bandwidth Product | f _T | | 250 | | MHz | V _{CC} =-10V I _E =5mA, |

* Total Device Dissipation : FR=1X0.75X0.062in Board,Derate 25°C.

Pulse Test : Pulse Width ≤300uS,Duty cycle ≤2%

DEVICE MARKING:

LMUN2114LT1G=A6D

LMUN2114LT1G

● Electrical characteristic curves

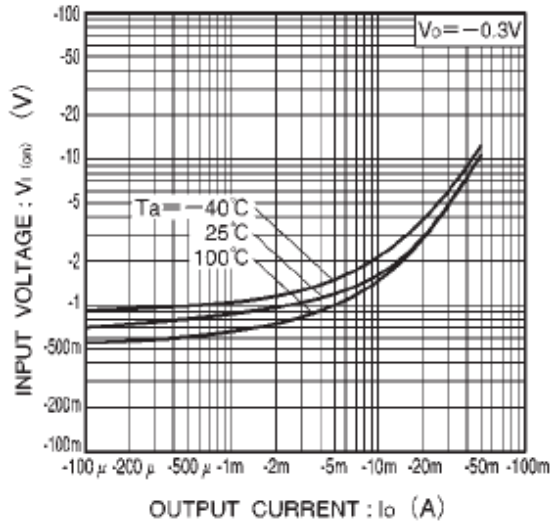


Fig.1 Input voltage vs. output current (ON characteristics)

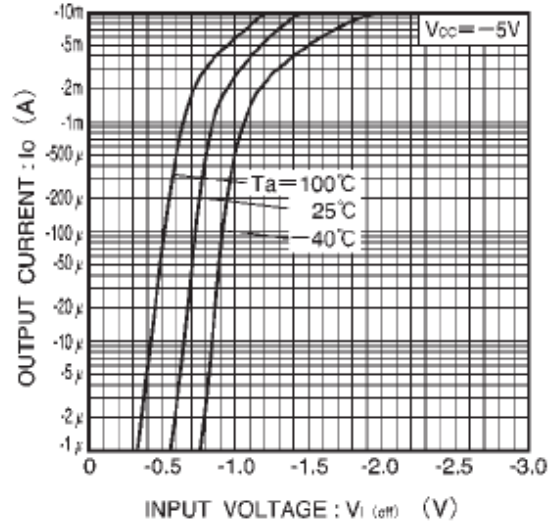


Fig.2 Output current vs. input voltage (OFF characteristics)

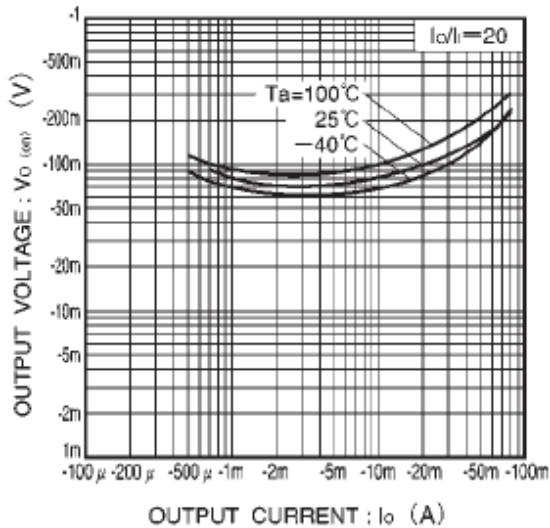


Fig.4 Output voltage vs. output current

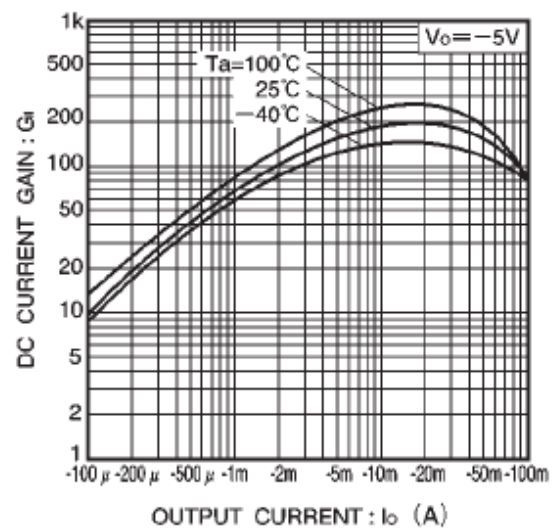
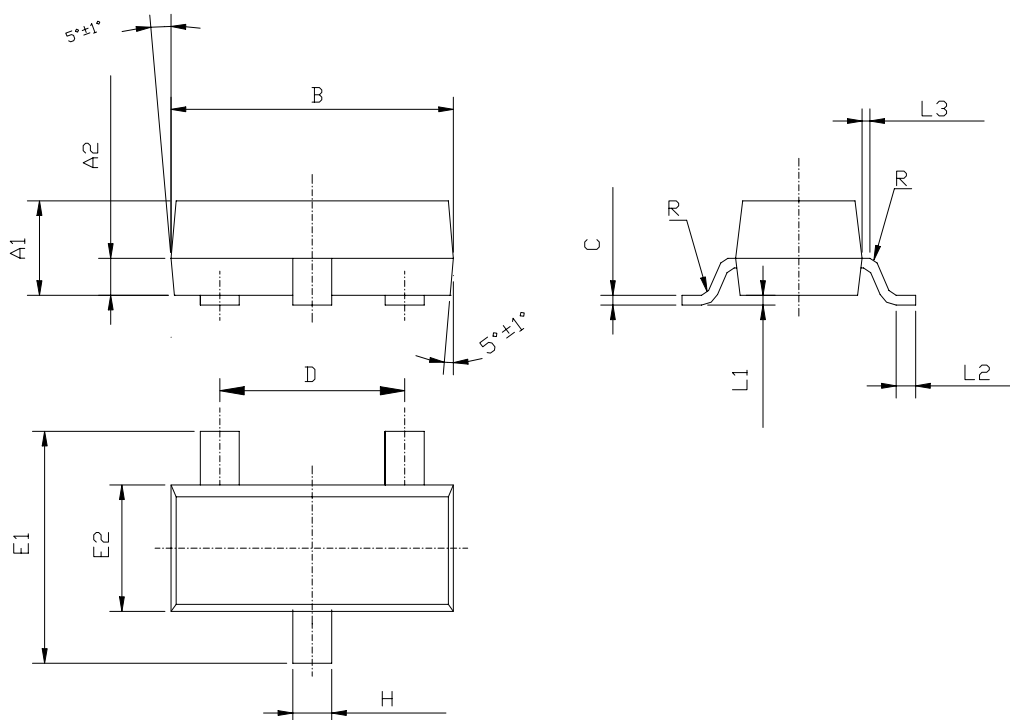
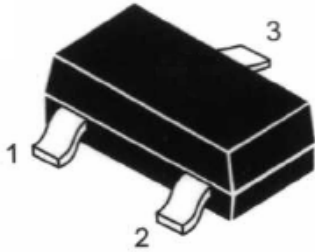


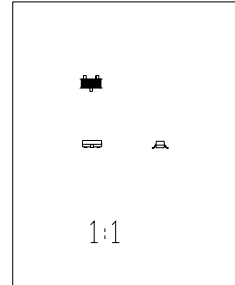
Fig.3 DC current gain vs. output current



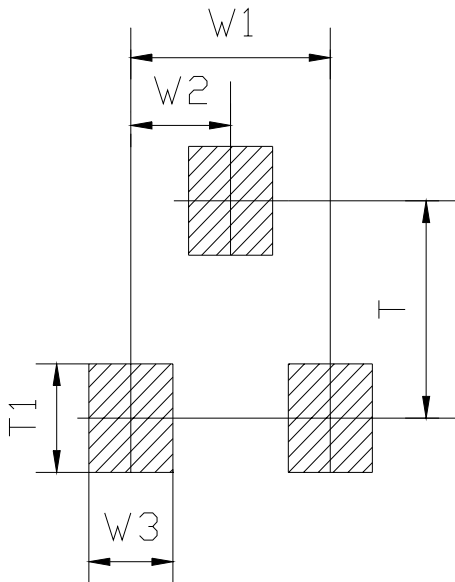
| Symbol | Dimensions in Millimeters | | | 内部结构 STYLS | 管脚 PIN | | |
|--------|---------------------------|---------|-------|---------------|------------|-----------------------|-----------------------|
| | Min | Nominal | Max | | 1 脚 | 2 脚 | 3 脚 |
| A1 | 0.900 | 0.970 | 1.000 | 6 | 基极 BASE | 发射极 EMITTER | 集电极 COLLECTOR |
| A2 | 0.350 | 0.380 | 0.410 | | 8 | 阳极 ANODE | 不连接 NO- CONNECTION |
| B | 2.800 | 2.900 | 3.000 | 9 | | 阳极 ANODE | 阳极 ANODE |
| C | 0.085 | 0.100 | 0.150 | | 11 | 阳极 ANODE | 阴极 CATHODE |
| D | 1.800 | 1.900 | 2.000 | 12 | | 阴极 CATHODE | 阴极 CATHODE |
| E1 | 2.200 | 2.400 | 2.600 | | 18 | 不连接 NO- CONNECTION | 阴极 CATHODE |
| E2 | 1.200 | 1.300 | 1.400 | 19 | | 阴极 CATHODE | 阳极 ANODE |
| H | 0.300 | 0.400 | 0.500 | | | | |
| L1 | 0.000 | | 0.100 | | | | |
| L2 | 0.200 | | | | | | |
| L3 | 0.030 | 0.080 | 0.130 | | | | |
| R | 0.080TYP | | | | | | |



OUTSIDE



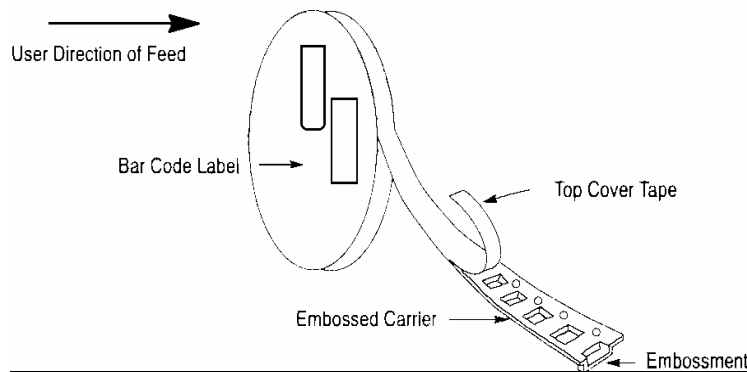
Scale 1:1 on letter size paper



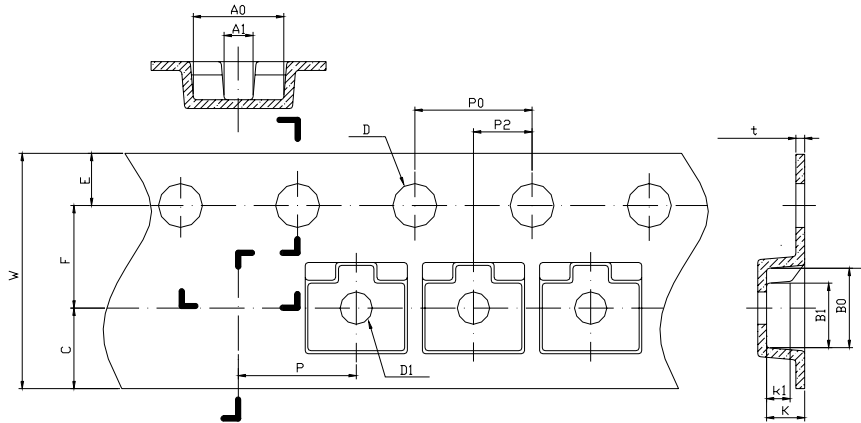
FOOTPRINTS FOR SOLDERING

| Symbol | Dimensions in Millimeters | Dimensions in Inches |
|--------|---------------------------|----------------------|
| | Nominal | Nominal |
| W1 | 1.900 | 0.0748 |
| W2 | 0.950 | 0.0374 |
| W3 | 0.800 | 0.0315 |
| T | 2.000 | 0.0787 |
| T1 | 1.000 | 0.0394 |

SOT-23 PACKAGING:

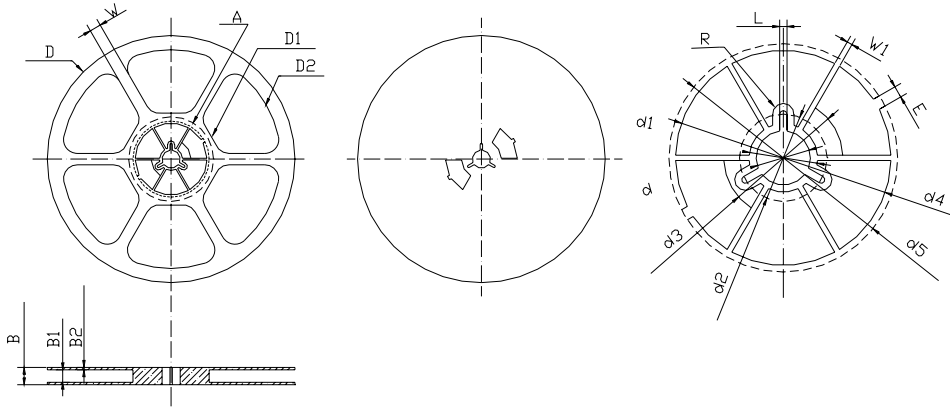


SOT-23 EMBOSSED CARRIER TAPE:



| Symbol | Dimensions in Millimeters | | | Dimensions in Inches | | |
|--------|---------------------------|---------|---------|----------------------|---------|---------|
| | Minimum | Nominal | Maximum | Minimum | Nominal | Maximum |
| A0 | 3.050 | 3.150 | 3.250 | 0.1201 | 0.1240 | 0.1280 |
| A1 | 0.900 | 1.000 | 1.100 | 0.0354 | 0.0394 | 0.0433 |
| B0 | 2.669 | 2.769 | 2.869 | 0.1051 | 0.1090 | 0.1130 |
| B1 | 2.100 | 2.200 | 2.300 | 0.0827 | 0.0866 | 0.0906 |
| C | 2.750TYP | | | 0.1083TYP | | |
| D | 1.500 | 1.500 | 1.600 | 0.0591 | 0.0591 | 0.0630 |
| D1 | 0.900 | 1.000 | 1.100 | 0.0354 | 0.0394 | 0.0433 |
| E | 1.650 | 1.750 | 1.850 | 0.0650 | 0.0689 | 0.0728 |
| F | 3.450 | 3.500 | 3.550 | 0.1358 | 0.1378 | 0.1398 |
| K | 1.119 | 1.219 | 1.319 | 0.0441 | 0.0480 | 0.0519 |
| K1 | 0.850TYP | | | 0.03346TYP | | |
| P | 3.900 | 4.000 | 4.100 | 0.1535 | 0.1575 | 0.1614 |
| P0 | 3.900 | 4.000 | 4.100 | 0.1535 | 0.1575 | 0.1614 |
| P010 | 39.800 | 40.000 | 40.200 | 1.5669 | 1.5748 | 1.5827 |
| P2 | 1.950 | 2.000 | 2.050 | 0.0768 | 0.0787 | 0.0807 |
| t | 0.216 | 0.229 | 0.242 | 0.0085 | 0.0090 | 0.0095 |
| W | 7.900 | 8.000 | 8.300 | 0.3110 | 0.3150 | 0.3268 |

SOT-23 REEL DATA:



| Symbol | Dimensions in Millimeters | | | Dimensions in Inches | | |
|--------|---------------------------|----------------|----------------|----------------------|---------------|---------------|
| | Minimum | Nominal | Maximum | Minimum | Nominal | Maximum |
| B | - | - | 12.500 | - | - | 0.4921 |
| B1 | 8.900 | 9.000 | 9.100 | 0.3504 | 0.3543 | 0.3583 |
| B2 | 1.700 | 1.750 | 1.800 | 0.0669 | 0.0689 | 0.0709 |
| D | ϕ 177.000 | ϕ 178.000 | ϕ 179.000 | Φ 6.9685 | Φ 7.0079 | Φ 7.0472 |
| D1 | Φ 67.600TYP | | | Φ 2.6614TYP | | |
| D2 | Φ 157.600TYP | | | Φ 6.2047 TYP | | |
| d | Φ 12.800 | Φ 13.000 | Φ 13.200 | Φ 0.5039 | Φ 0.5118 | Φ 0.5197 |
| d1 | Φ 16.40 TYP | | | Φ 0.6457 TYP | | |
| d2 | Φ 21.000 TYP | | | Φ 0.8268 TYP | | |
| d3 | Φ 25.200 TYP | | | Φ 0.99221TYP | | |
| d4 | Φ 50.600 | Φ 51.600 | Φ 52.600 | Φ 1.9921 | Φ 2.0315 | Φ 2.0709 |
| d5 | Φ 53.800 | Φ 54.800 | Φ 55.800 | Φ 2.1181 | Φ 2.1575 | Φ 2.1969 |
| E | 2.800 TYP | | | 0.1102TYP | | |
| L | 1.750 TYP | | | 0.0689 TYP | | |
| R | 2.575 TYP | | | 0.1014 TYP | | |
| W | 15.000 TYP | | | 0.5906 TYP | | |
| W1 | 1.300 TYP | | | 0.0512 TYP | | |