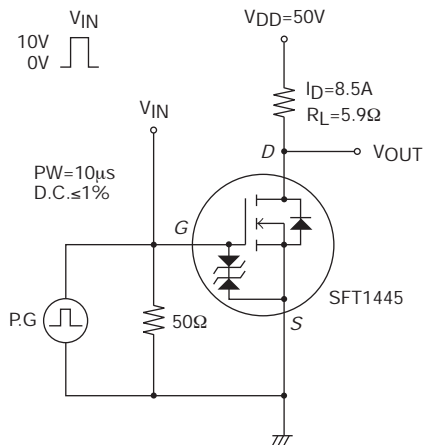


SFT1445

Electrical Characteristics at Ta=25°C

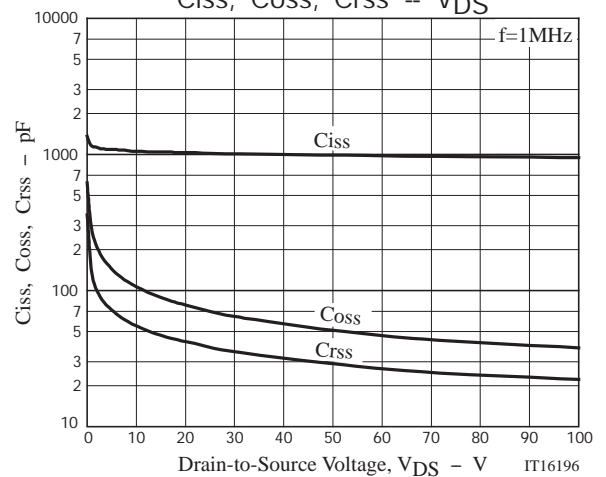
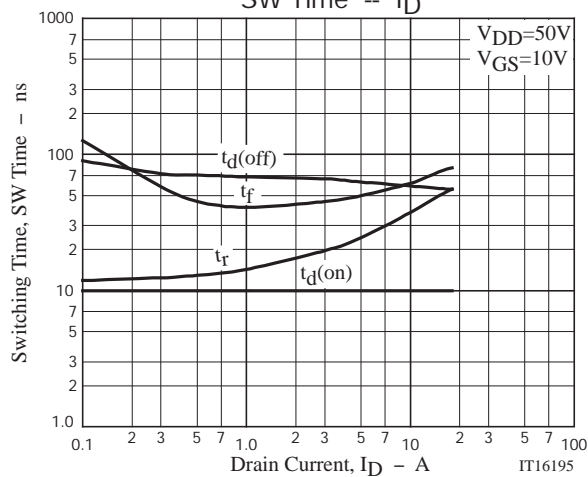
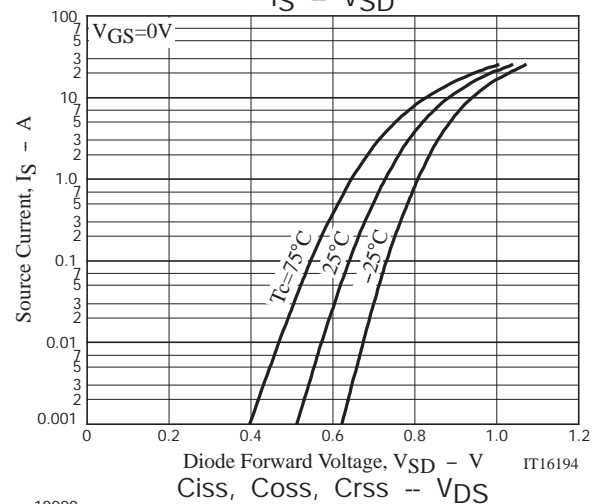
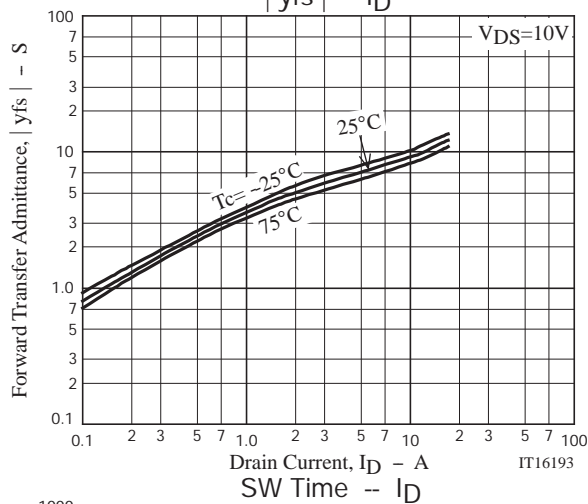
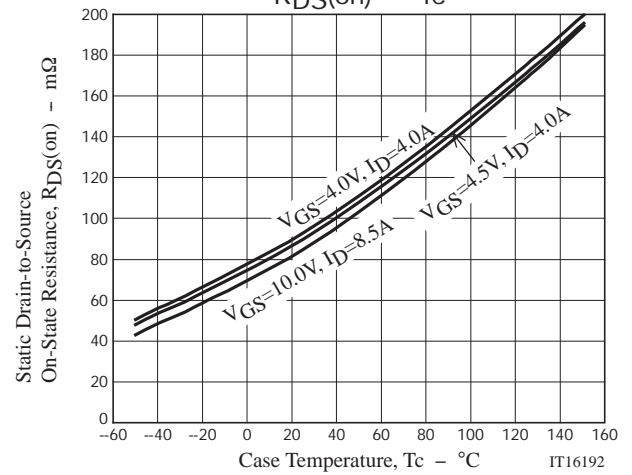
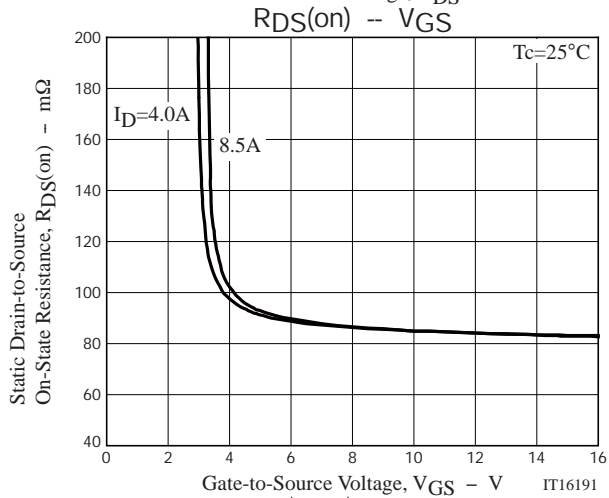
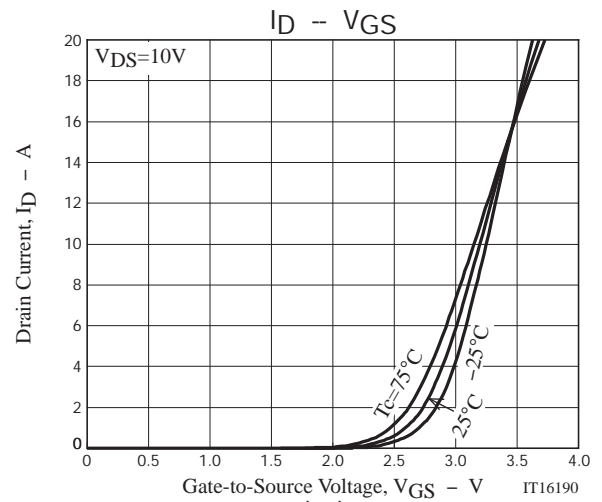
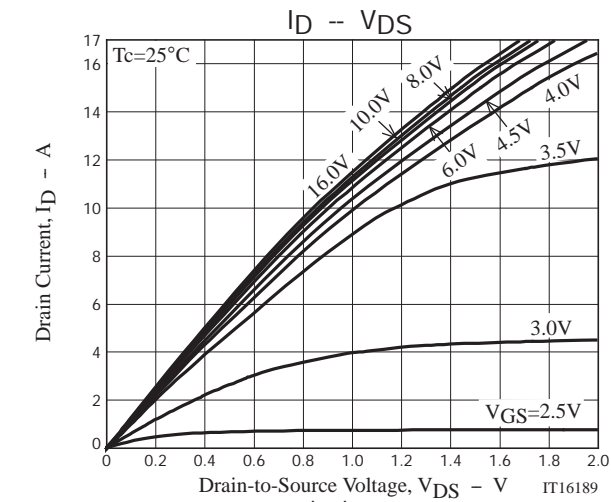
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|---------------|-----------------------------------|---------|------|----------|-----------|
| | | | min | typ | max | |
| Drain-to-Source Breakdown Voltage | $V_{(BR)DSS}$ | $I_D=1mA, V_{GS}=0V$ | 100 | | | V |
| Zero-Gate Voltage Drain Current | I_{DSS} | $V_{DS}=100V, V_{GS}=0V$ | | | 1 | μA |
| Gate-to-Source Leakage Current | I_{GSS} | $V_{GS}=\pm 16V, V_{DS}=0V$ | | | ± 10 | μA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS}=10V, I_D=1mA$ | 1.2 | | 2.6 | V |
| Forward Transfer Admittance | $ y_{fs} $ | $V_{DS}=10V, I_D=8.5A$ | | 8.9 | | S |
| Static Drain-to-Source On-State Resistance | $R_{DS(on)1}$ | $I_D=8.5A, V_{GS}=10V$ | | 85 | 111 | $m\Omega$ |
| | $R_{DS(on)2}$ | $I_D=4A, V_{GS}=4.5V$ | | 90 | 126 | $m\Omega$ |
| | $R_{DS(on)3}$ | $I_D=4A, V_{GS}=4V$ | | 93 | 130 | $m\Omega$ |
| | | | | | | |
| Input Capacitance | C_{iss} | $V_{DS}=20V, f=1MHz$ | | 1030 | | pF |
| Output Capacitance | C_{oss} | | | 78 | | pF |
| Reverse Transfer Capacitance | C_{rss} | | | 42 | | pF |
| Turn-ON Delay Time | $t_{d(on)}$ | | | 10 | | ns |
| Rise Time | t_r | See specified Test Circuit. | | 35 | | ns |
| Turn-OFF Delay Time | $t_{d(off)}$ | | | 60 | | ns |
| Fall Time | t_f | | | 60 | | ns |
| Total Gate Charge | Q_g | $V_{DS}=50V, V_{GS}=10V, I_D=17A$ | | 19 | | nC |
| Gate-to-Source Charge | Q_{gs} | | | 3.6 | | nC |
| Gate-to-Drain "Miller" Charge | Q_{gd} | | | 3.8 | | nC |
| Diode Forward Voltage | V_{SD} | $I_S=17A, V_{GS}=0V$ | | 0.96 | 1.2 | V |

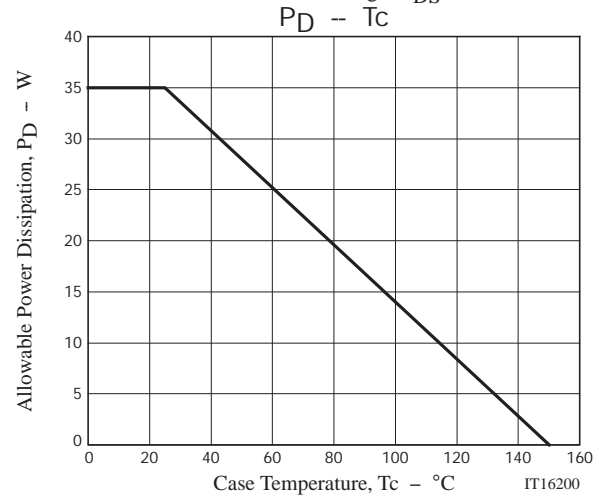
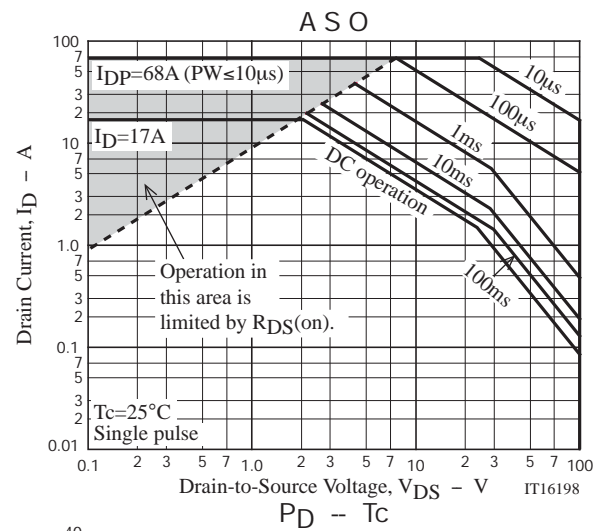
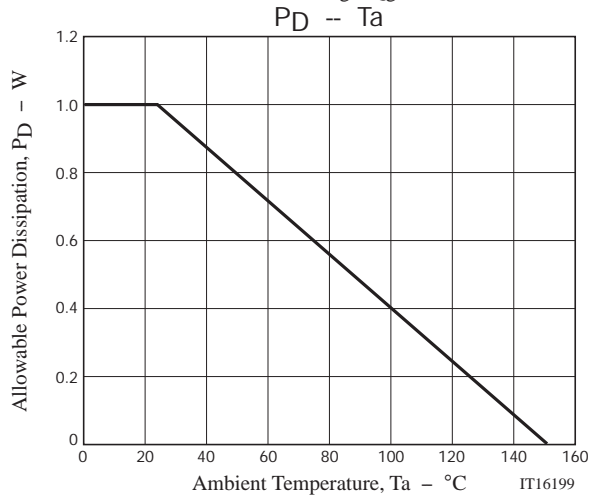
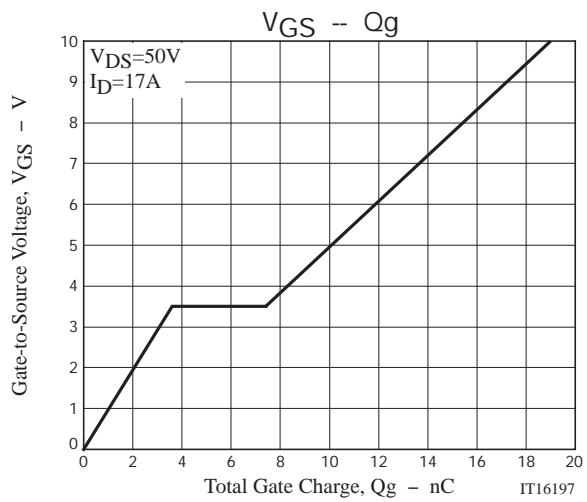
Switching Time Test Circuit



Ordering Information

| Device | Package | Shipping | memo |
|--------------|---------|--------------|--------------------------|
| SFT1445-H | TP | 500pcs./bag | Pb Free and Halogen Free |
| SFT1445-TL-H | TP-FA | 700pcs./reel | |





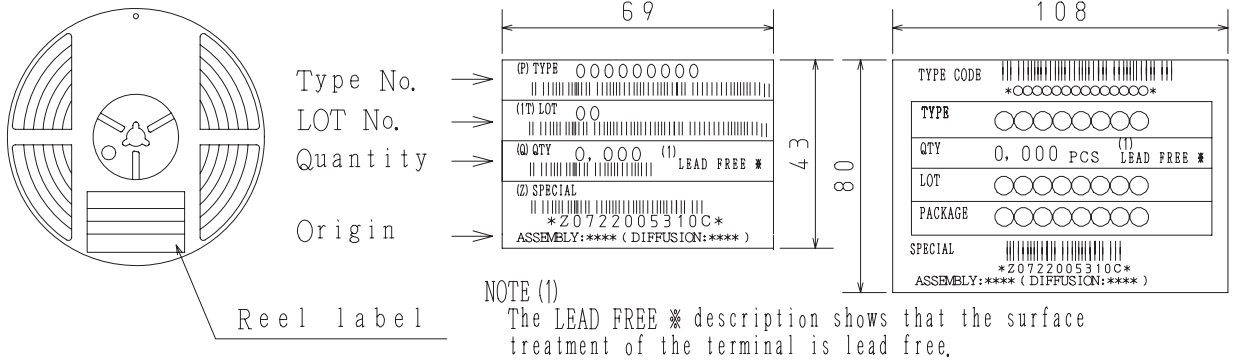
Taping Specification

SFT1445-TL-H

Packing Format

| Package Name | Carrier Tape Type | Maximum Number of devices contained (pcs) | | | Packing format | |
|--------------|-------------------|---|-----------|-----------|---|--|
| | | Reel | Inner box | Outer box | Inner BOX (C-1) | Outer BOX (A-7) |
| TP-FA | TP | 700 | 2,100 | 12,600 | 3 reels contained Dimensions:mm (external) 183×72×185 | 6 inner boxes contained Dimensions:mm (external) 440×195×210 |

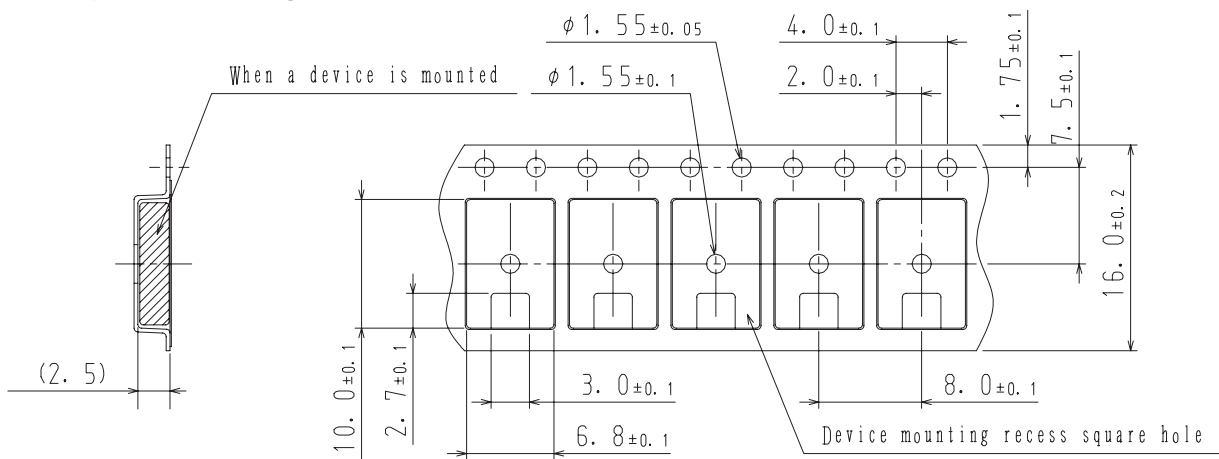
Packing method



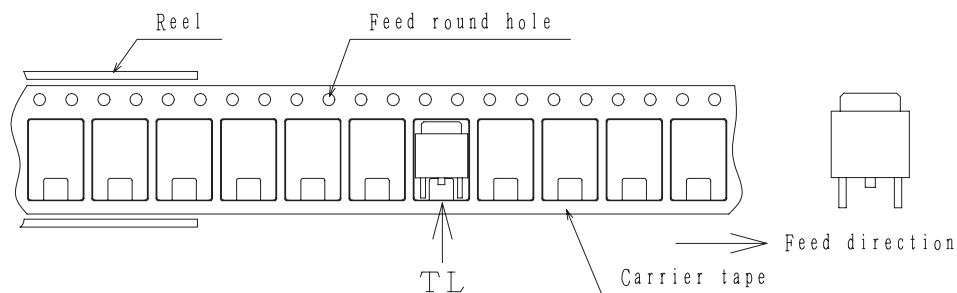
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

Taping configuration

1. Carrier tape size (unit:mm)



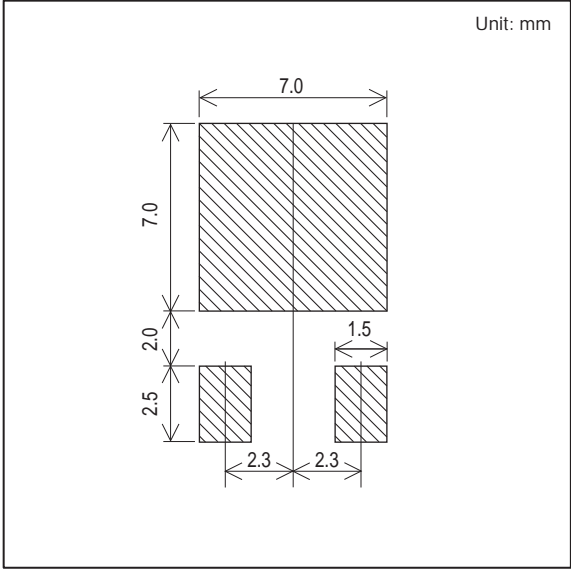
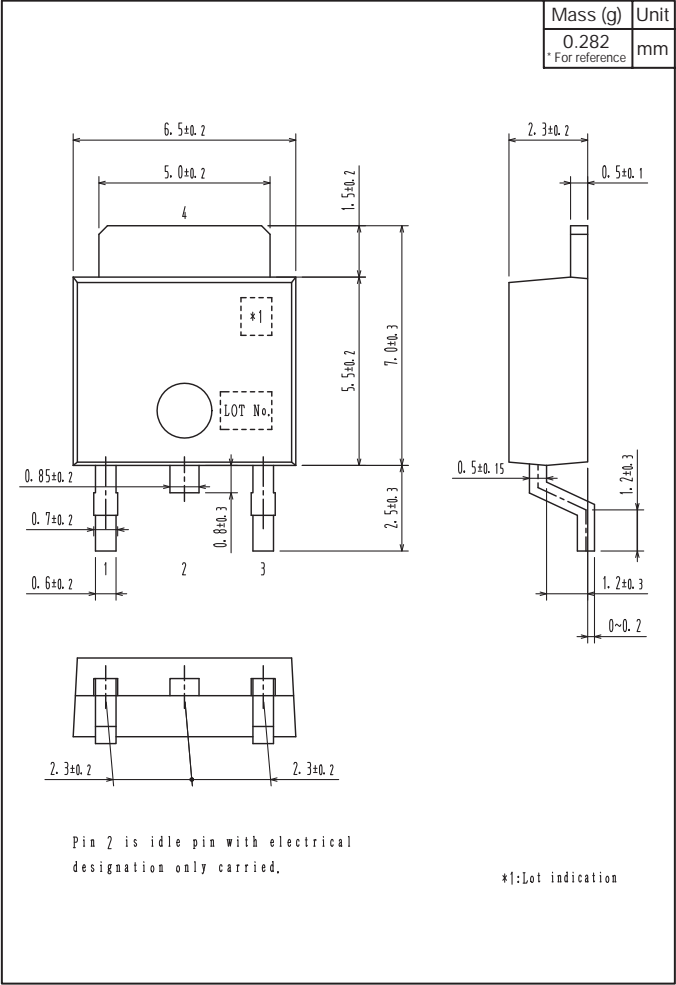
2. Device placement direction



Those with one electrode terminal on the feed hole side.....TL

Outline Drawing
SFT1445-TL-H

Land Pattern Example

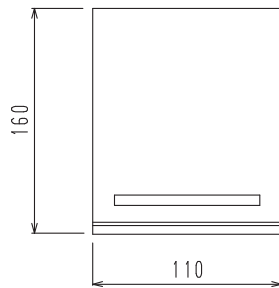


Bag Packing Specification

SFT1445-H

1. Packing Format

| Package Name | Maximum Number of devices contained (pcs) | | | |
|--------------|---|---|-------------|-------------|
| | Bag | Inner box | Outer box | |
| TP | 500 | B-1 | A-1 | A-2 |
| | | 10, 000 | 50, 000 | 30, 000 |
| | | Packing format (Dimensions:mm (external)) | | |
| | | Inner box | Outer box | |
| | | B-1 | A-1 | A-2 |
| | | 445×225×55 | 470×250×300 | 470×250×190 |

2. Bag dimensions
(unit:mm)3. Bag label, Inner box label
(unit:mm)

| | | | |
|------------|---|----|----|
| Type No. → | (P) TYPE 0000000000 | 69 | 43 |
| LOT No. → | (T) LOT 00 | | |
| Quantity → | (Q) QTY 0,000 (1) LEAD FREE * | | |
| Origin → | (2) SPECIAL *Z0722005310C* ASSEMBLY:**** (DIFFUSION:****) | | |

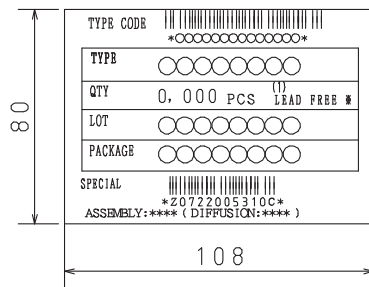
4. Outer box label
(unit:mm)

It is a label at the time of factory shipments.
The form of a label may change in physical
distribution process.

NOTE (1)

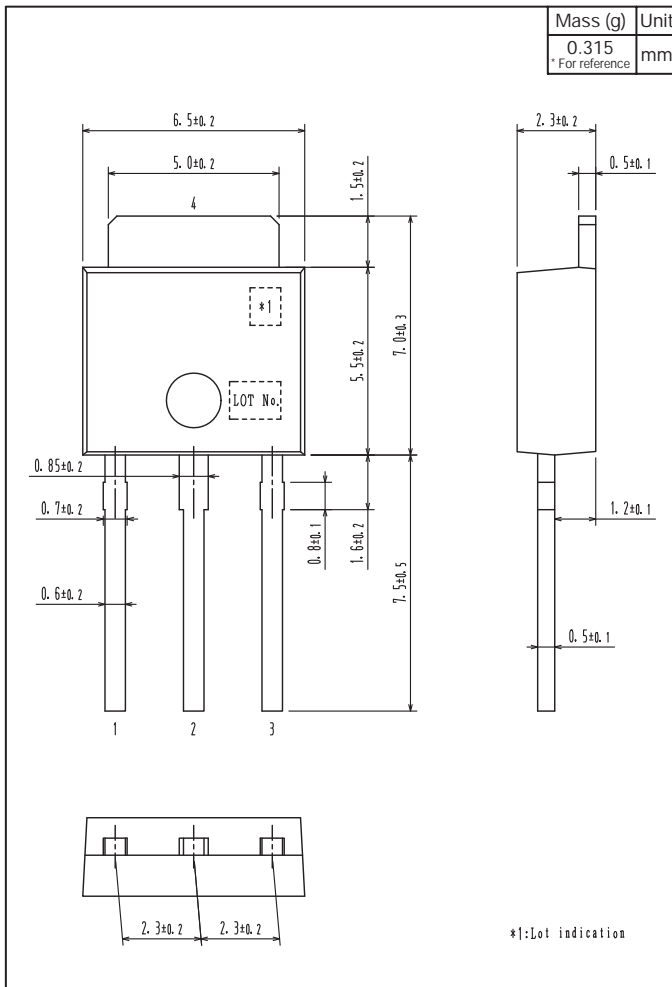
The LEAD FREE * description shows that the
surface treatment of the terminal is lead free.

| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |



Outline Drawing

SFT1445-H



Note on usage : Since the SFT1445 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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