



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

SFT1345 — P-Channel Silicon MOSFET General-Purpose Switching Device Applications

Features

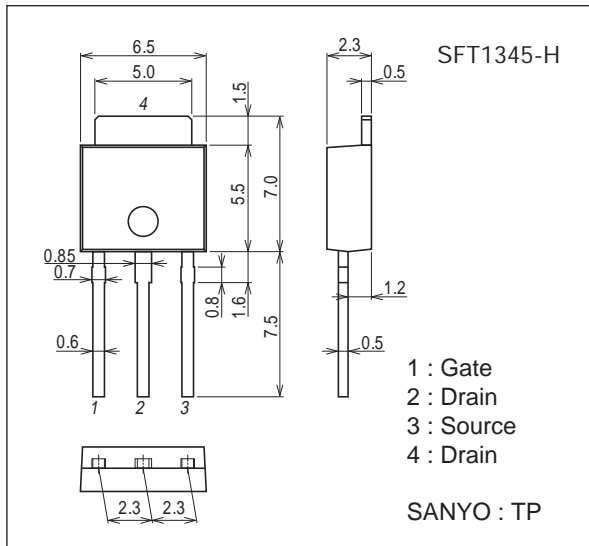
- ON-resistance $R_{DS(on)1}=210m\Omega(\text{typ.})$
- Input Capacitance $C_{iss}=1020pF(\text{typ.})$
- 4V drive
- Halogen free compliance
- Protection diode in

Specifications

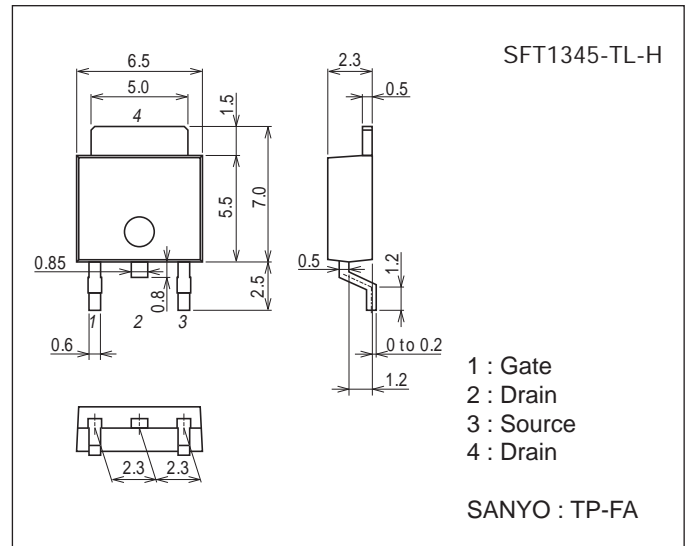
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		-100	V
Gate-to-Source Voltage	V_{GSS}		± 20	V
Drain Current (DC)	I_D		-11	A
Drain Current ($PW \leq 10\mu s$)	I_{DP}	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	-44	A
Allowable Power Dissipation	P_D		1.0	W
		$T_c=25^\circ\text{C}$	35	W
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Package Dimensions unit : mm (typ)
7518-004



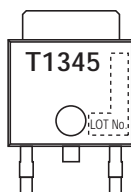
Package Dimensions unit : mm (typ)
7003-004



Product & Package Information

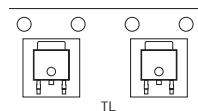
- Package : TP
- JEITA, JEDEC : SC-64, TO-251
- Minimum Packing Quantity : 500 pcs./bag

Marking
(TP, TP-FA)

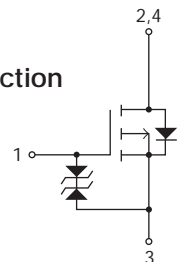


- Package : TP-FA
- JEITA, JEDEC : SC-63, TO-252
- Minimum Packing Quantity : 700 pcs./reel

Packing Type (TP-FA) : TL



Electrical Connection

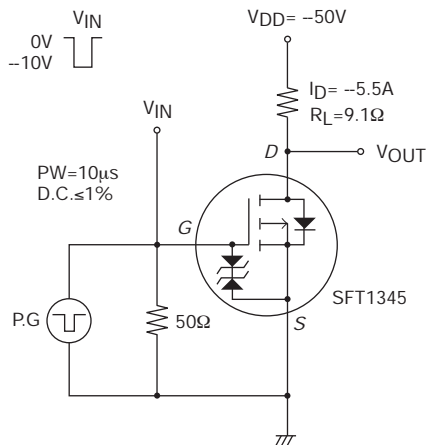


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Electrical Characteristics at Ta=25°C

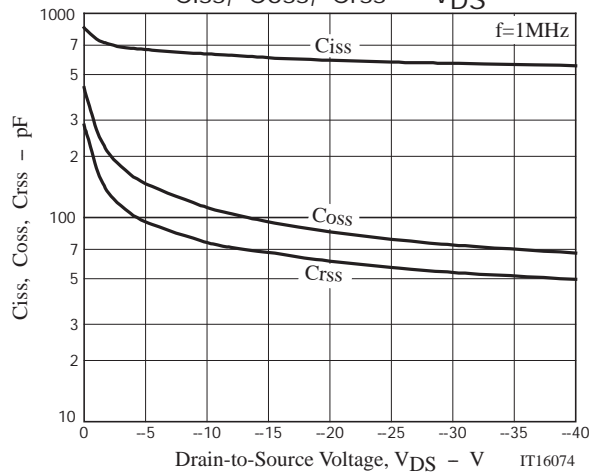
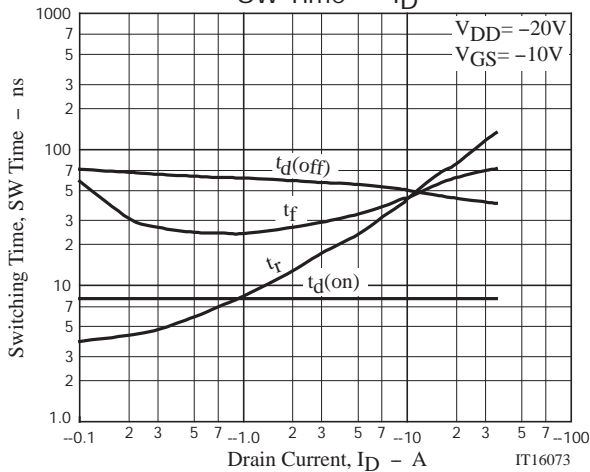
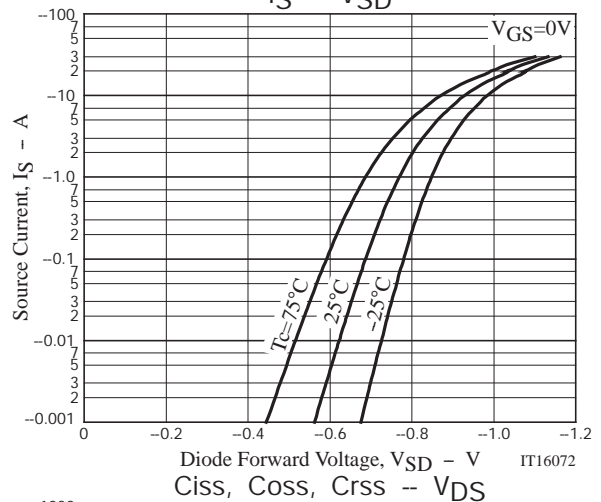
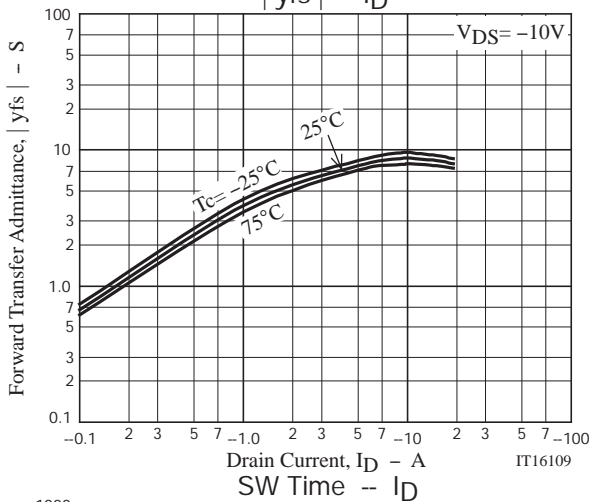
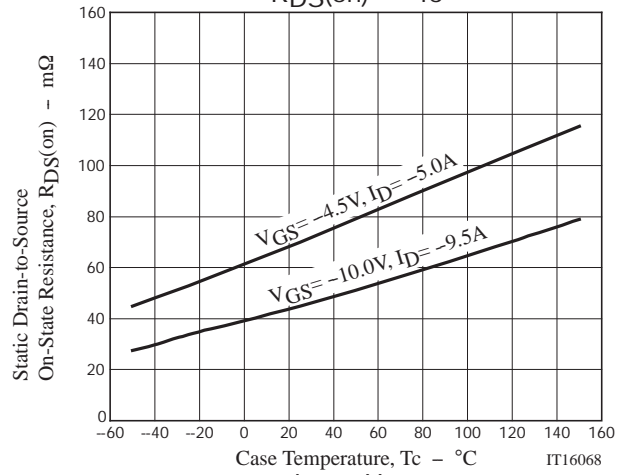
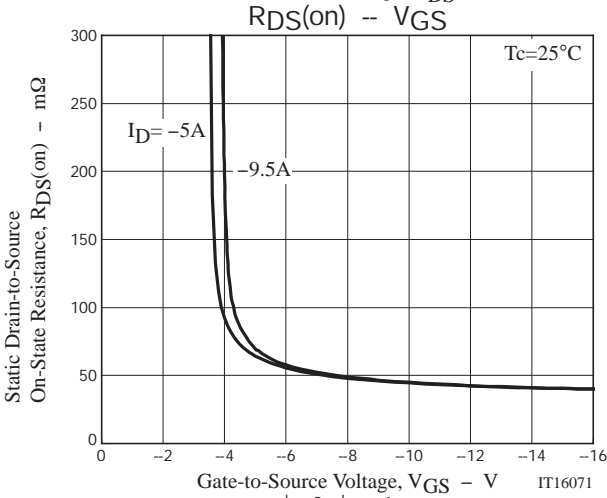
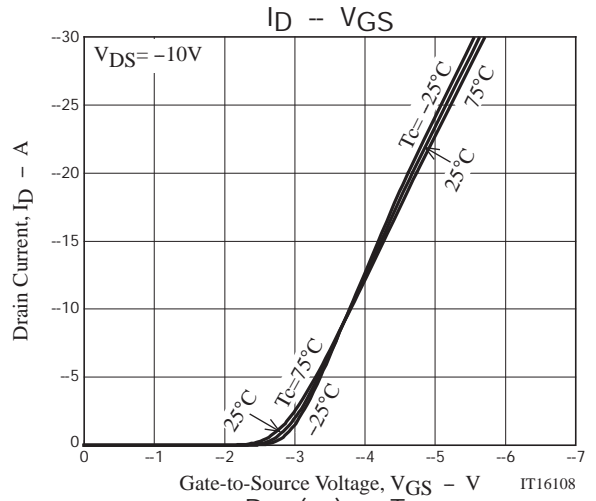
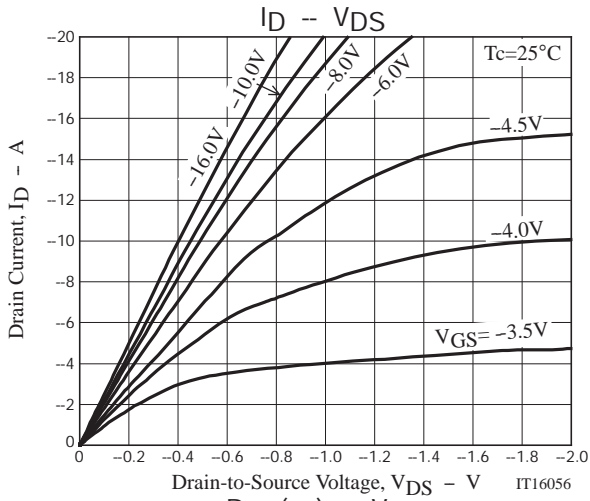
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V(BR)DSS	I _D =-1mA, V _{GS} =0V	-100			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-100V, V _{GS} =0V			-1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±16V, V _{DS} =0V			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-1.2		-2.6	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-5.5A		8.5		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-5.5A, V _{GS} =-10V		210	275	mΩ
	R _{DS(on)2}	I _D =-3A, V _{GS} =-4.5V		225	315	mΩ
	R _{DS(on)3}	I _D =-3A, V _{GS} =-4V		235	330	mΩ
Input Capacitance	C _{iss}			1020		pF
Output Capacitance	C _{oss}	V _{DS} =-20V, f=1MHz		72		pF
Reverse Transfer Capacitance	C _{rss}			43		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		9.5		ns
Rise Time	t _r			25		ns
Turn-OFF Delay Time	t _{d(off)}			105		ns
Fall Time	t _f			55		ns
Total Gate Charge	Q _g				21	
Gate-to-Source Charge	Q _{gs}	V _{DS} =-50V, V _{GS} =-10V, I _D =-11A		3.6		nC
Gate-to-Drain "Miller" Charge	Q _{gd}			4.5		nC
Diode Forward Voltage	V _{SD}		I _S =-11A, V _{GS} =0V		-0.93	-1.5

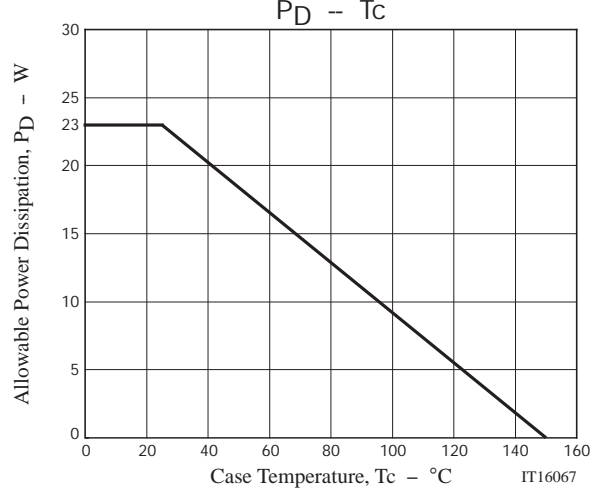
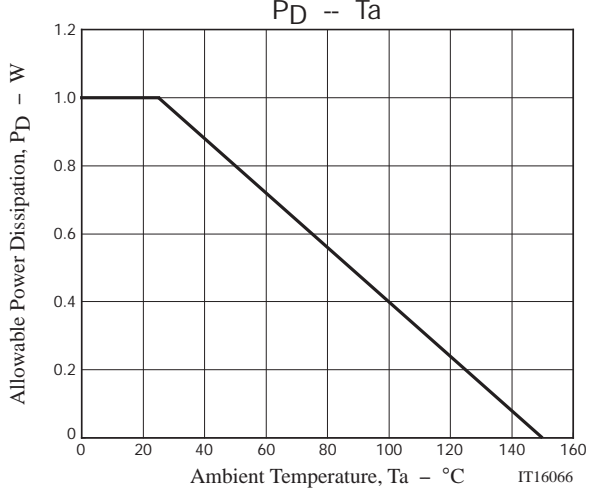
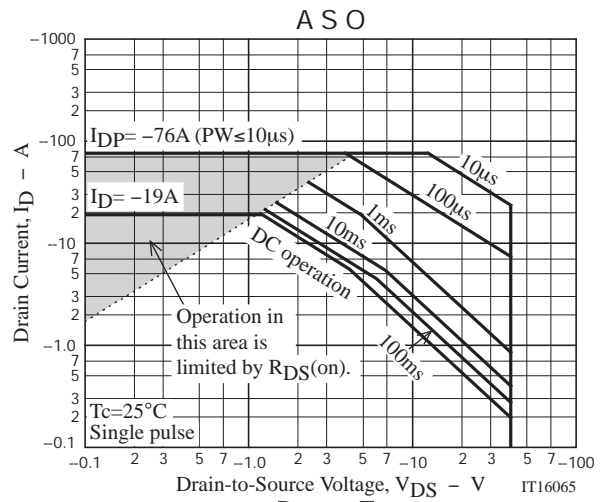
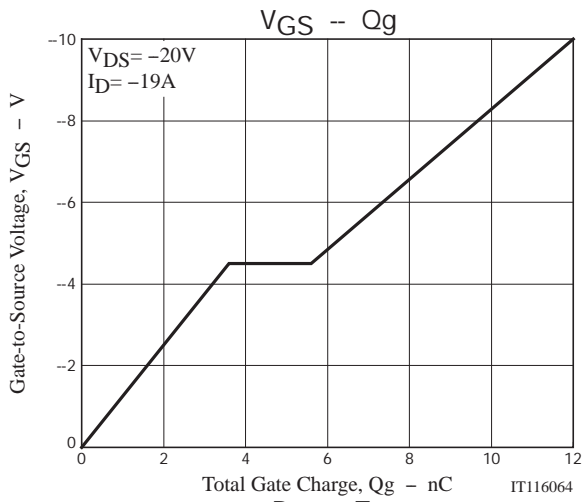
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
SFT1345-H	TP	500pcs./bag	Pb Free and Halogen Free
SFT1345-TL-H	TP-FA	700pcs./reel	





Taping Specification

SFT1345-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



Reel label, Inner box label (unit:mm)

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

Reel label details:
 Type No. → (P) TYPE 00000000
 LOT No. → (1) LOT 00
 Quantity → (Q) QTY 0,000 (1) LEAD FREE *
 Origin → (Z) SPECIAL *Z0722005310C* ASSEMBLY:**** (DIFFUSION:****)

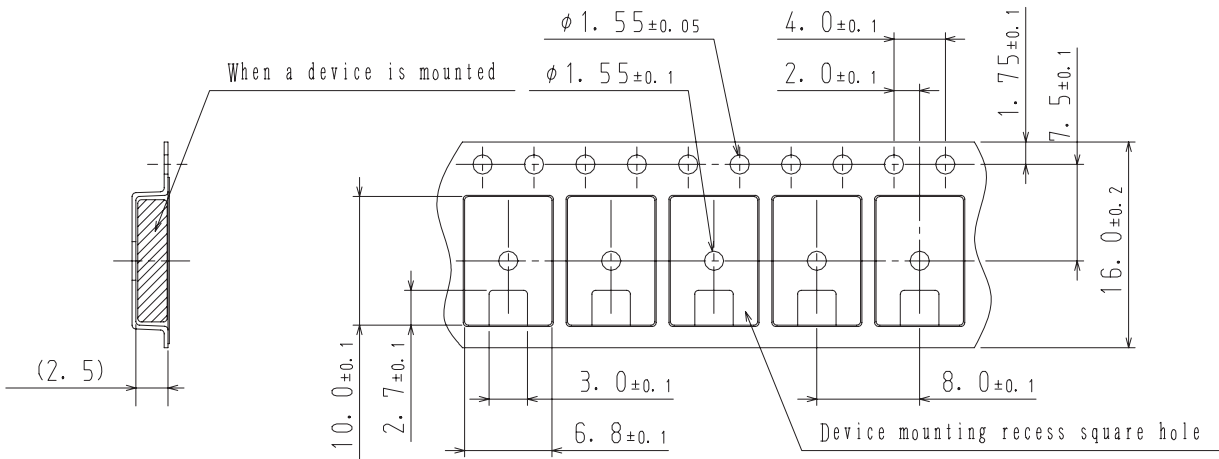
Inner box label details:
 TYPE CODE
 TYPE ○○○○○○
 QTY 0,000 PCS (1) LEAD FREE *
 LOT ○○○○○○
 PACKAGE ○○○○○○
 SPECIAL *Z0722005310C* ASSEMBLY:**** (DIFFUSION:****)

NOTE (1)
The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

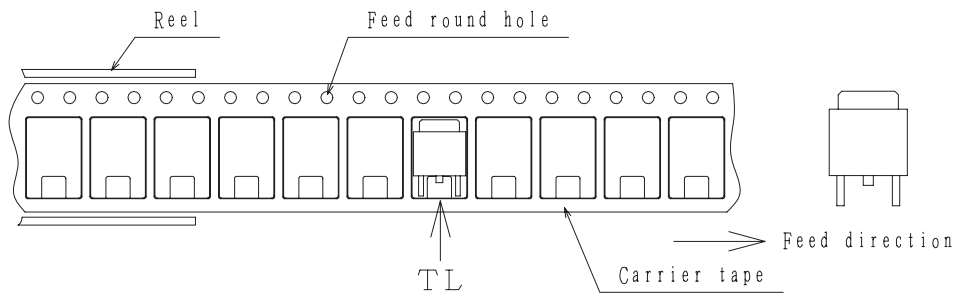
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

Taping configuration

1. Carrier tape size (unit:mm)



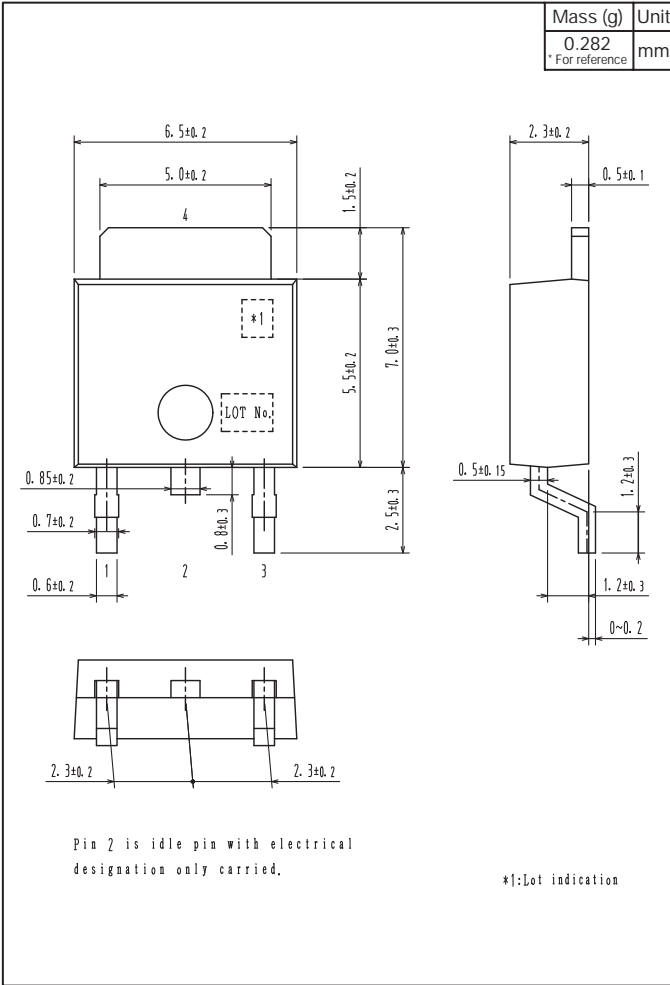
2. Device placement direction



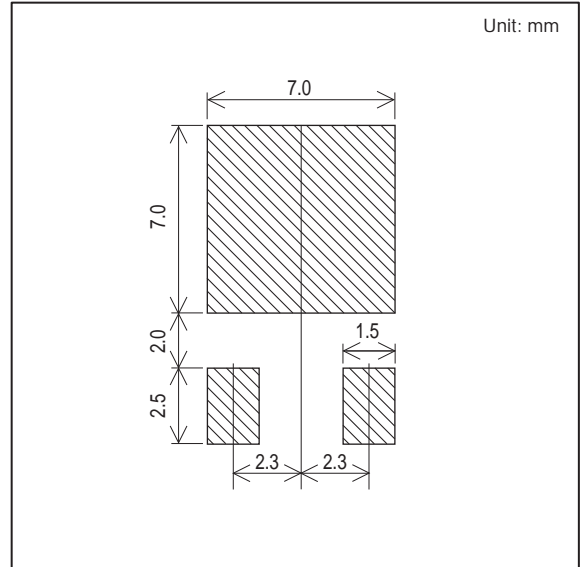
Those with one electrode terminal on the feed hole side.....TL

SFT1345

Outline Drawing SFT1345-TL-H



Land Pattern Example



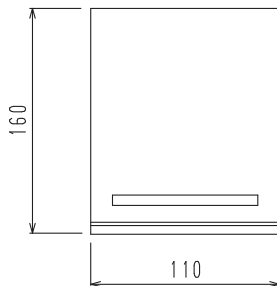
Bag Packing Specification

SFT1345-H

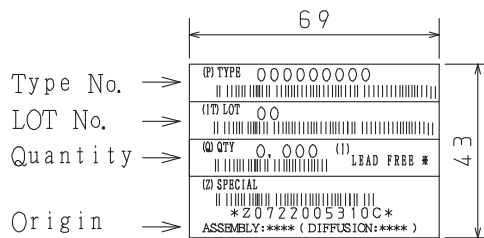
1. Packing Format

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)



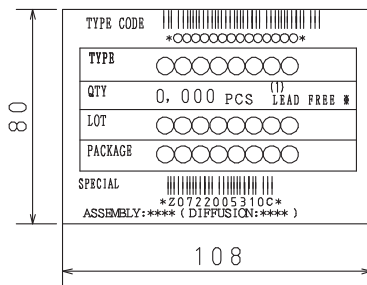
4. Outer box label
(unit:mm)

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.

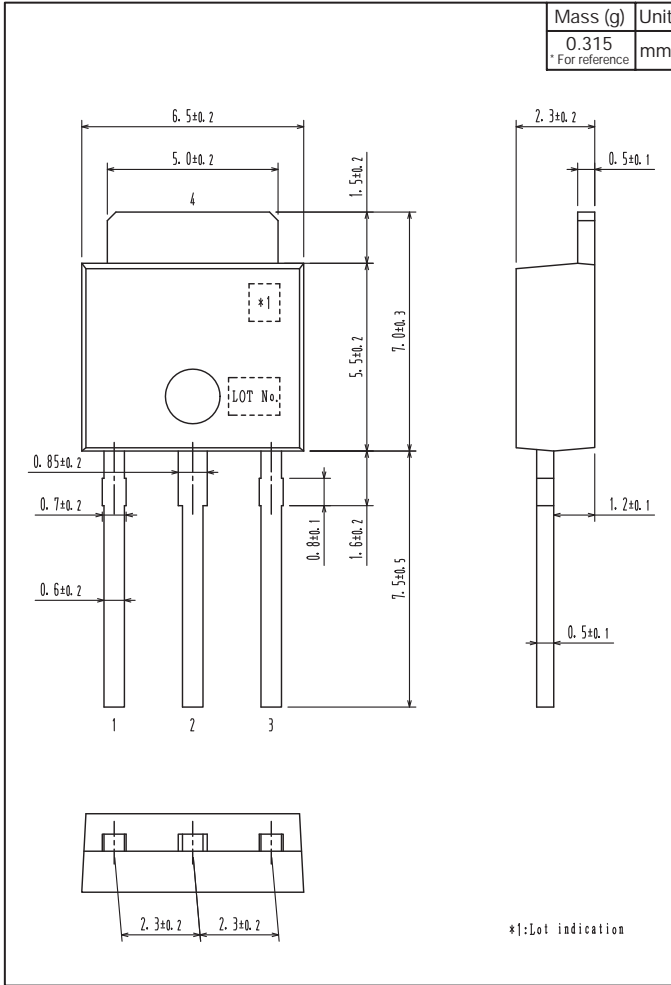
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3



SFT1345

Outline Drawing

SFT1345-H



Note on usage : Since the SFT1345 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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