



SCH1330 — P-Channel Silicon MOSFET

General-Purpose Switching Device

Applications

Features

- Low ON-resistance
- Ultrahigh-speed switching
- 1.8V drive
- Halogen free compliance
- Protection diode in

Specifications

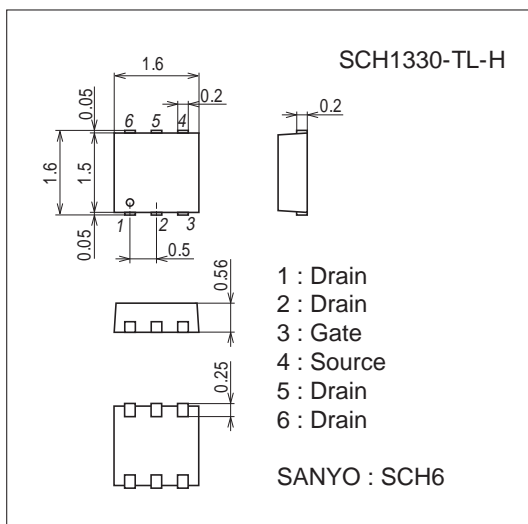
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-20	V
Gate-to-Source Voltage	V _{GSS}		±10	V
Drain Current (DC)	I _D		-1.5	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycles≤1%	-6	A
Allowable Power Dissipation	P _D	When mounted on ceramic substrate (900mm ² ×0.8mm)	1	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Package Dimensions

unit : mm (typ)

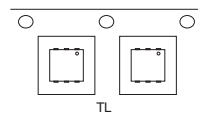
7028-002



Product & Package Information

- Package : SCH6
- JEITA, JEDEC : SOT-563
- Minimum Packing Quantity : 5,000 pcs./reel

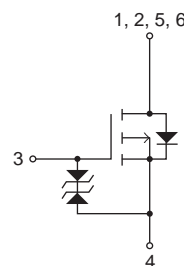
Packing Type : TL



Marking



Electrical Connection

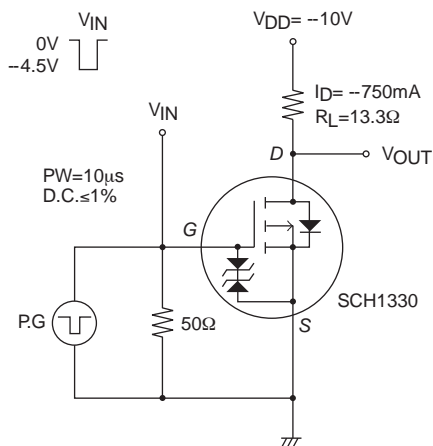


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Electrical Characteristics at Ta=25°C

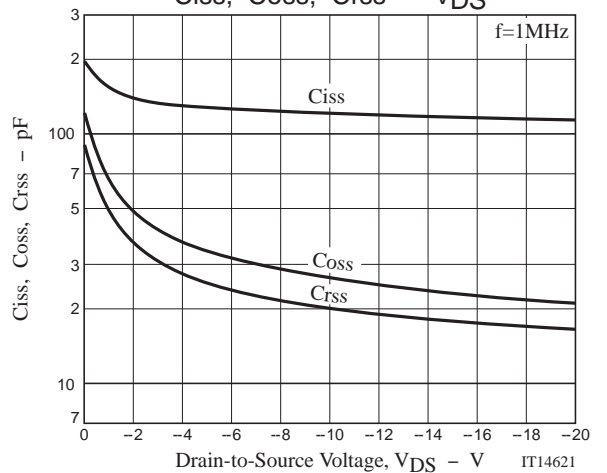
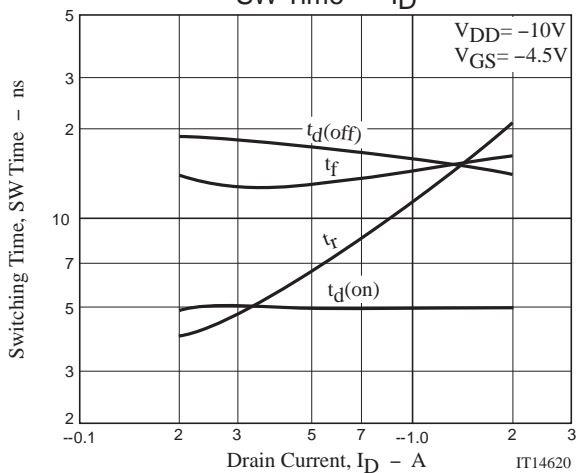
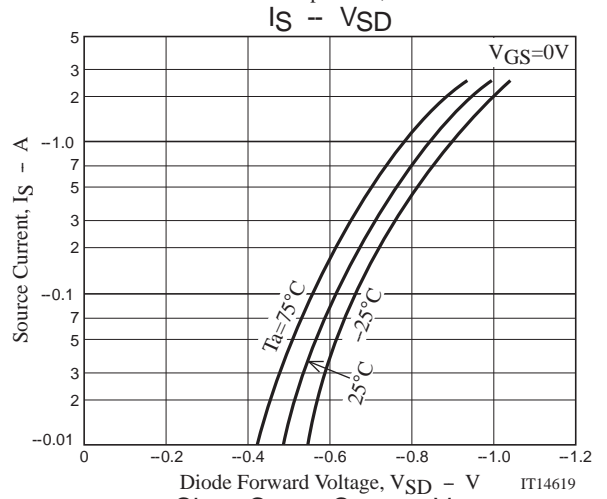
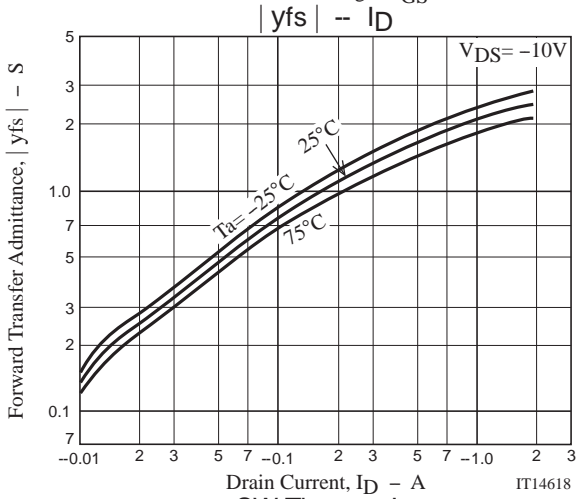
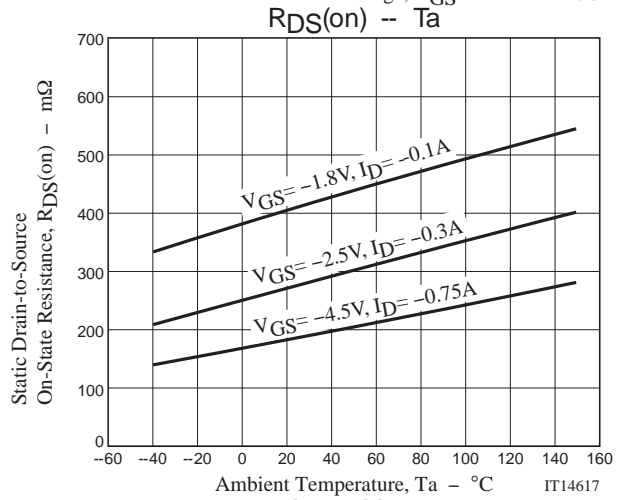
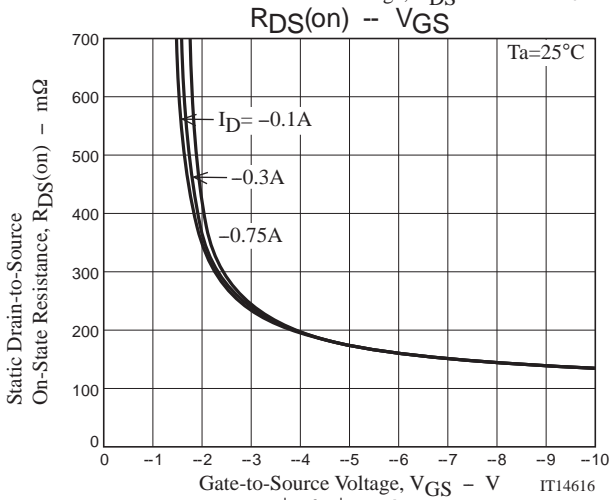
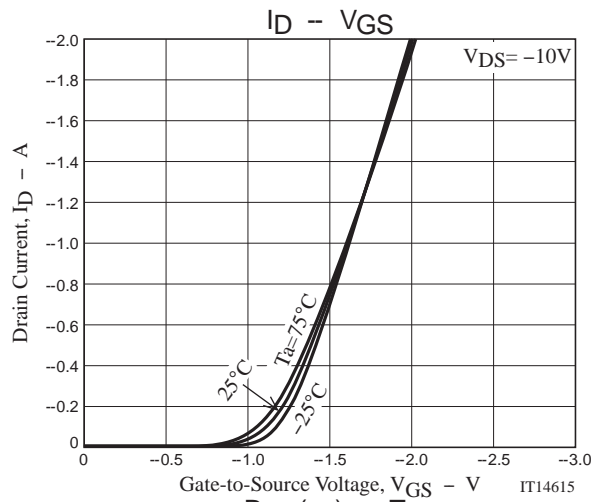
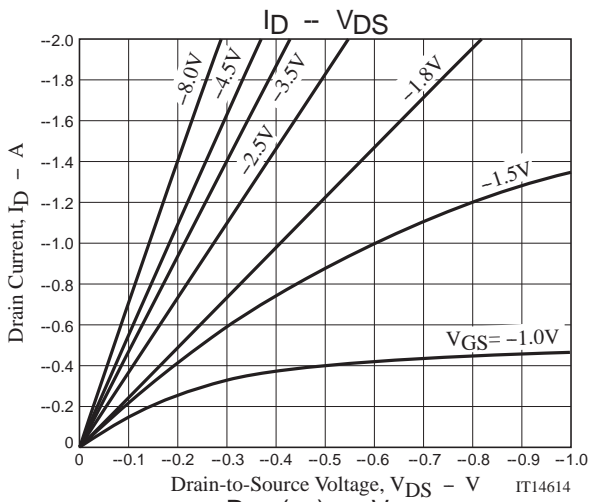
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=-1mA, VGS=0V	-20			V
Zero-Gate Voltage Drain Current	IDSS	VDS=-20V, VGS=0V			-1	μA
Gate-to-Source Leakage Current	IGSS	VGS=±8V, VDS=0V			±10	μA
Cutoff Voltage	VGS(off)	VDS=-10V, ID=-1mA	-0.4		-1.4	V
Forward Transfer Admittance	yfs	VDS=-10V, ID=-750mA	1.14	1.9		S
Static Drain-to-Source On-State Resistance	RDS(on)1	ID=-750mA, VGS=-4.5V		185	241	mΩ
	RDS(on)2	ID=-300mA, VGS=-2.5V		275	385	mΩ
	RDS(on)3	ID=-100mA, VGS=-1.8V		410	615	mΩ
Input Capacitance	Ciss	VDS=-10V, f=1MHz		120		pF
Output Capacitance	Coss			26		pF
Reverse Transfer Capacitance	Crss			20		pF
Turn-ON Delay Time	td(on)			5.3		ns
Rise Time	tr	See specified Test Circuit.		9.7		ns
Turn-OFF Delay Time	td(off)			16		ns
Fall Time	tf			14		ns
Total Gate Charge	Qg			1.7		nC
Gate-to-Source Charge	Qgs	VDS=-10V, VGS=-4.5V, ID=-1.5A		0.28		nC
Gate-to-Drain "Miller" Charge	Qgd			0.47		nC
Diode Forward Voltage	VSD		IS=-1.5A, VGS=0V		-0.89	-1.2

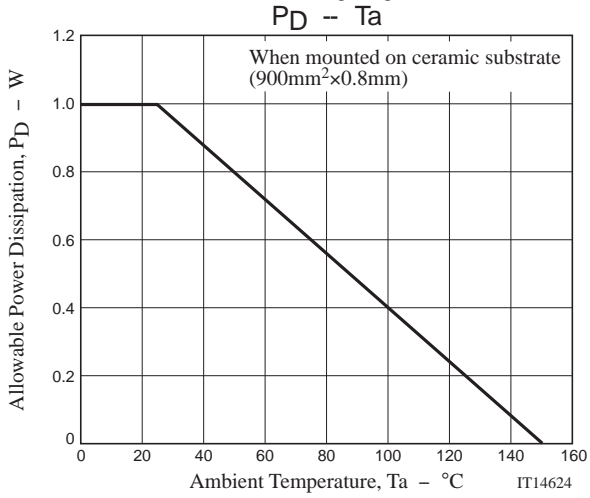
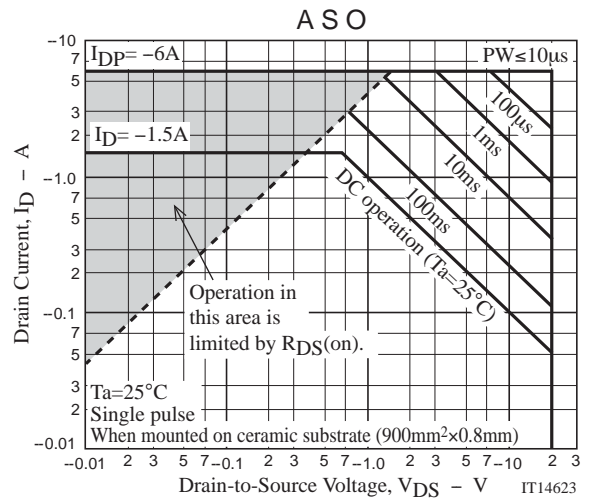
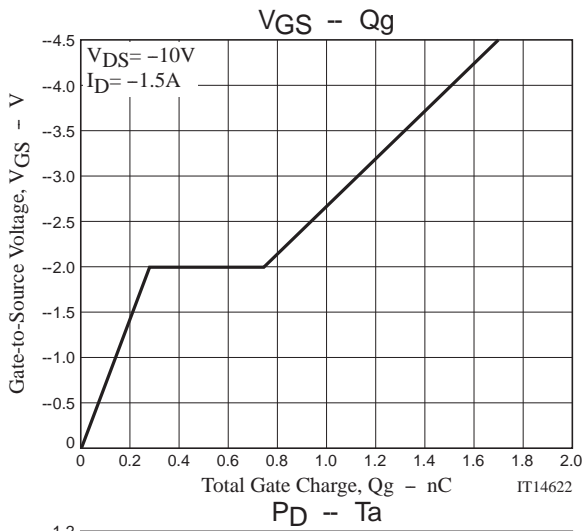
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
SCH1330-TL-H	SCH6	5,000pcs./reel	Pb Free and Halogen Free





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Taping Specification

SCH1330-TL-H

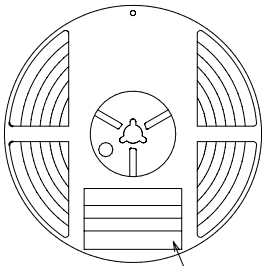
1. Packing Format

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)
SCH6	SCH6	5,000	25,000	150,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label
(unit: mm)

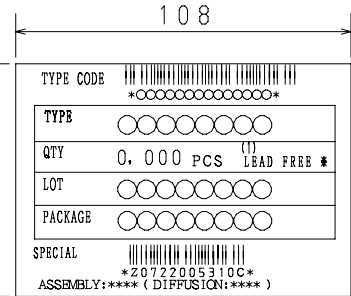
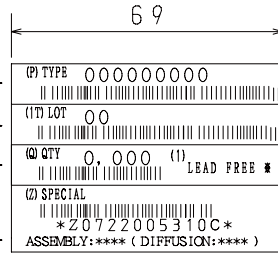
Outer box label
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Reel label

Type No. →
LOT No. →
Quantity →
Origin →



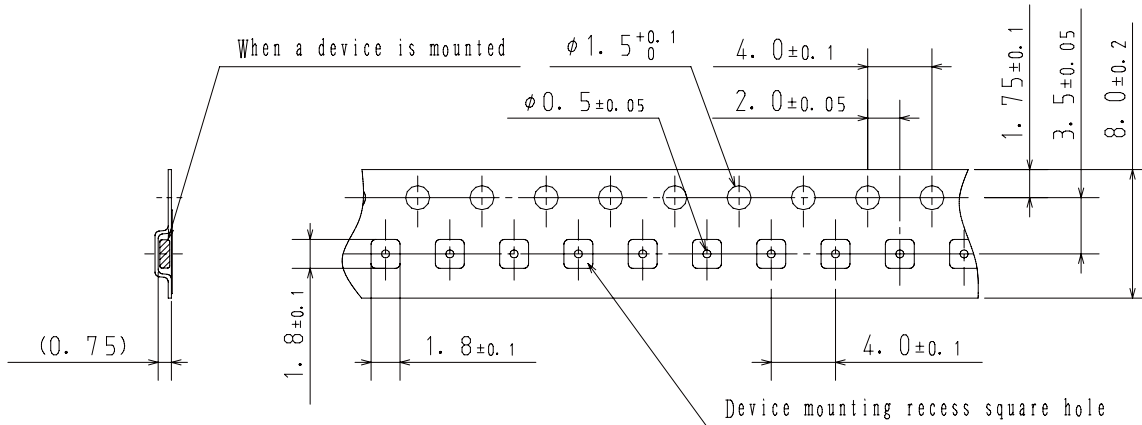
NOTE (1)

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

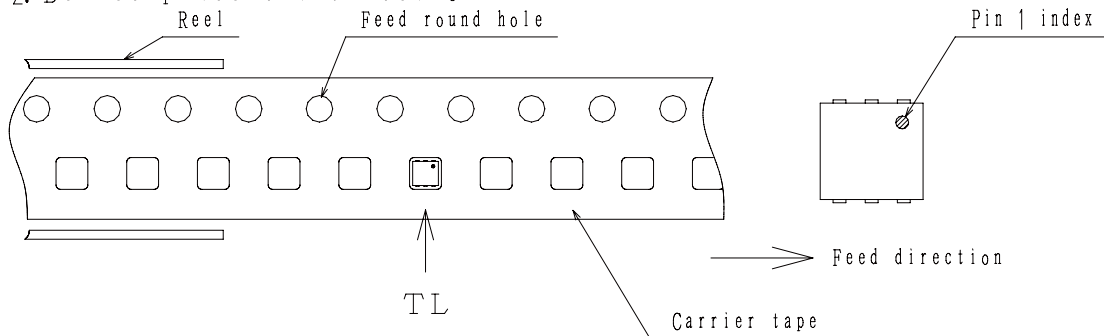
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



2-2. Device placement direction

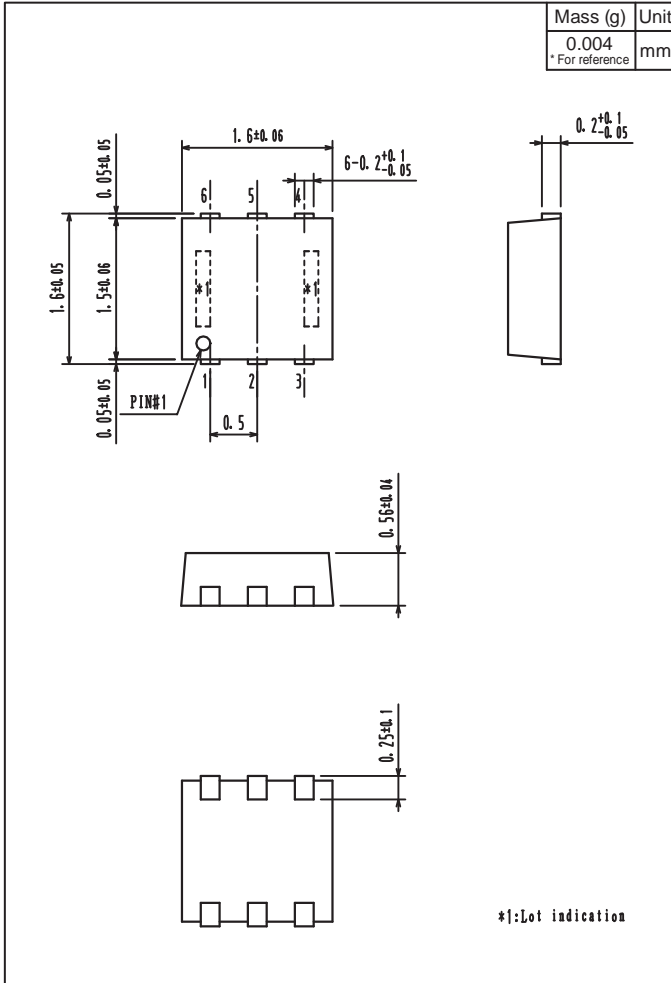


Those with pin 1 index on the feed hole side.....TL

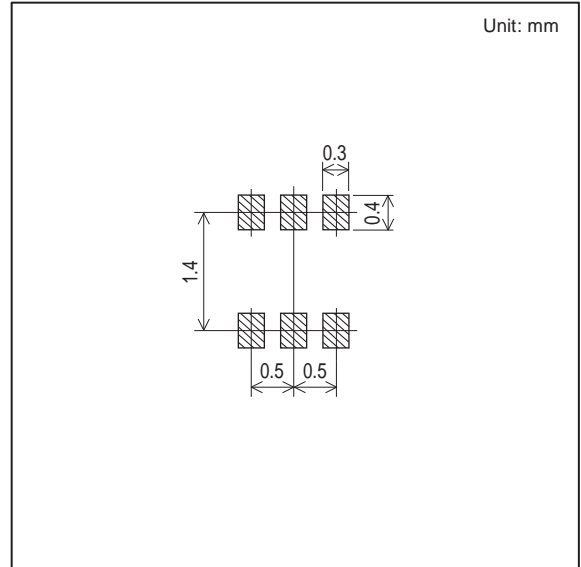
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Outline Drawing

SCH1330-TL-H



Land Pattern Example



Note on usage : Since the SCH1330 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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