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SCH1334

P-Channel Power MOSFET -12V, -1.6A, 215mΩ, Single SCH6

Features

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

Specifications

Absolute Maximum Ratings at Ta=25°C

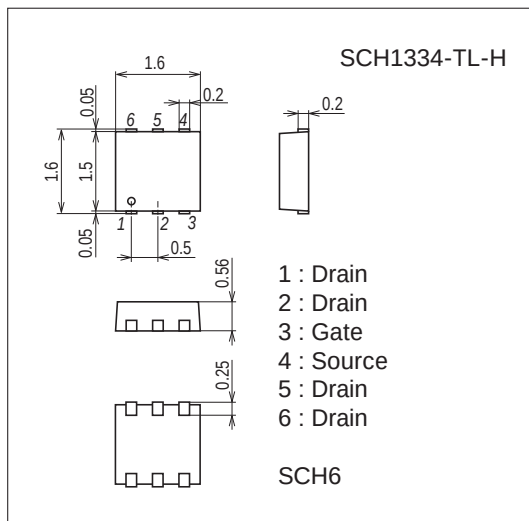
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-12	V
Gate-to-Source Voltage	V _{GSS}		±10	V
Drain Current (DC)	I _D		-1.6	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-6.4	A
Allowable Power Dissipation	P _D	When mounted on ceramic substrate (900mm ² ×0.8mm)	0.8	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

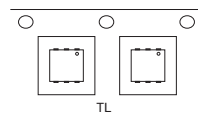
7028-002



Product & Package Information

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

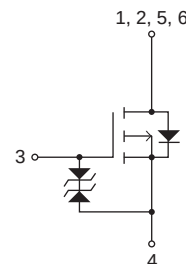
Packing Type : TL



Marking



Electrical Connection

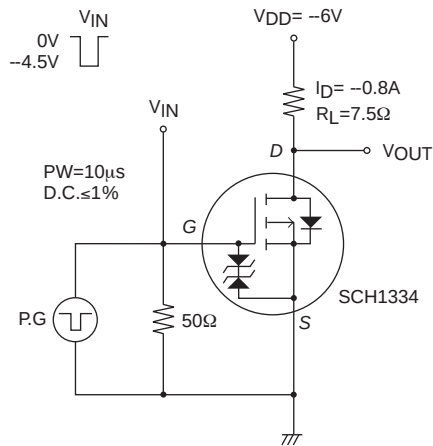


SCH1334

Electrical Characteristics at Ta=25°C

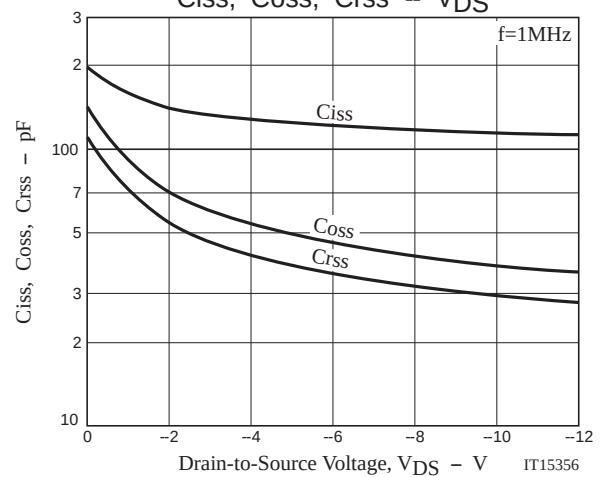
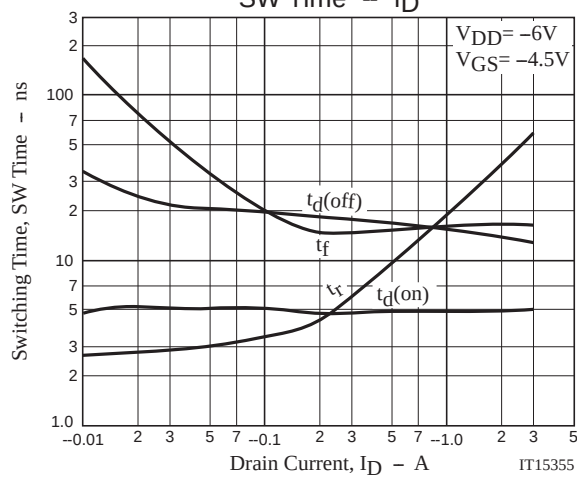
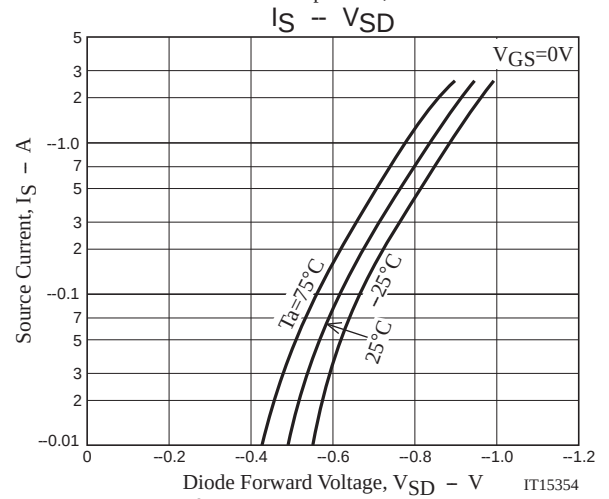
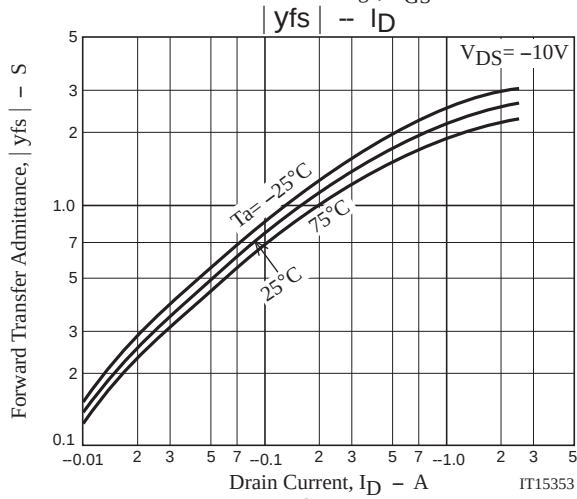
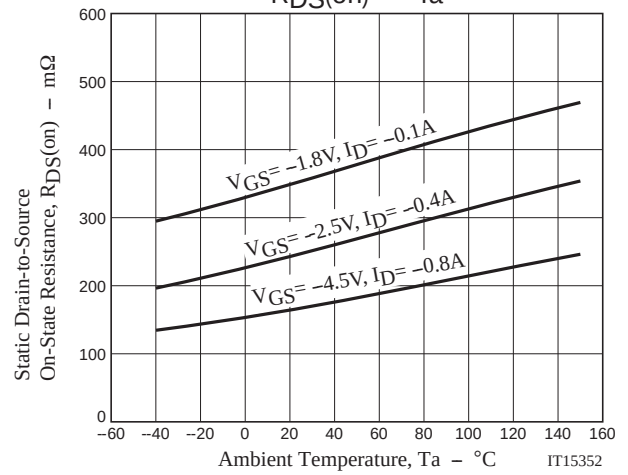
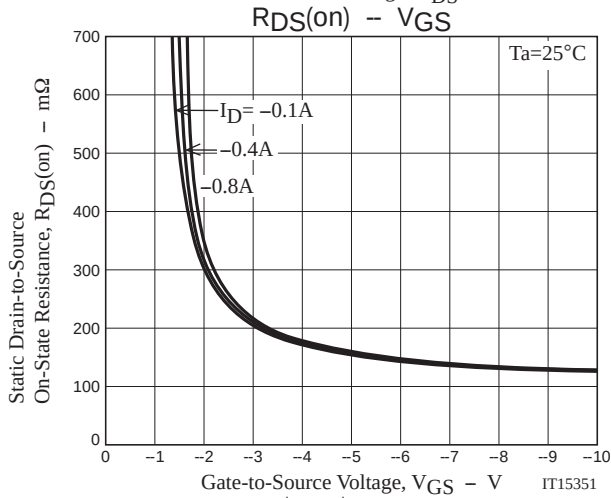
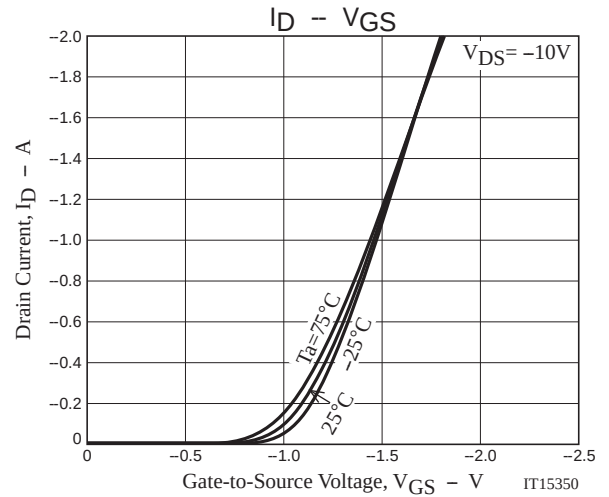
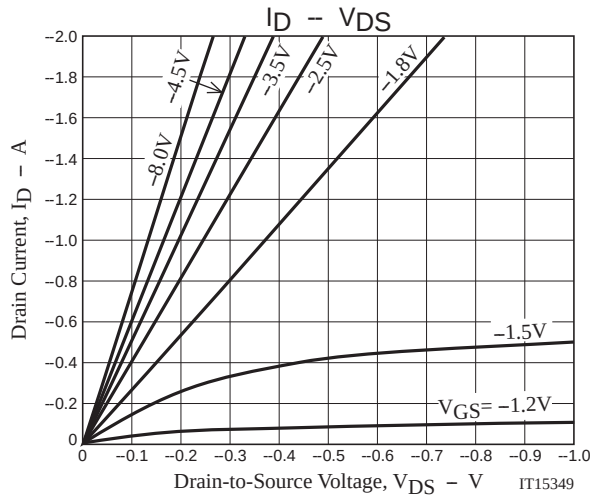
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0V$	-12			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -12V, V_{GS} = 0V$			-10	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 8V, V_{DS} = 0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -6V, I_D = -1mA$	-0.4		-1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = -6V, I_D = -0.8A$	1.2	2.1		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = -0.8A, V_{GS} = -4.5V$		165	215	m Ω
	$R_{DS(on)2}$	$I_D = -0.4A, V_{GS} = -2.5V$		245	345	m Ω
	$R_{DS(on)3}$	$I_D = -0.1A, V_{GS} = -1.8V$		370	560	m Ω
Input Capacitance	C_{iss}	$V_{DS} = -6V, f = 1MHz$		120		pF
Output Capacitance	C_{oss}			46		pF
Reverse Transfer Capacitance	C_{rss}			36		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		4.9		ns
Rise Time	t_r			17.5		ns
Turn-OFF Delay Time	$t_{d(off)}$			16.0		ns
Fall Time	t_f			16.5		ns
Total Gate Charge	Q_g	$V_{DS} = -6V, V_{GS} = -4.5V, I_D = -1.6A$		1.6		nC
Gate-to-Source Charge	Q_{gs}			0.27		nC
Gate-to-Drain "Miller" Charge	Q_{gd}			0.43		nC
Diode Forward Voltage	V_{SD}	$I_S = -1.6A, V_{GS} = 0V$		-0.88	-1.2	V

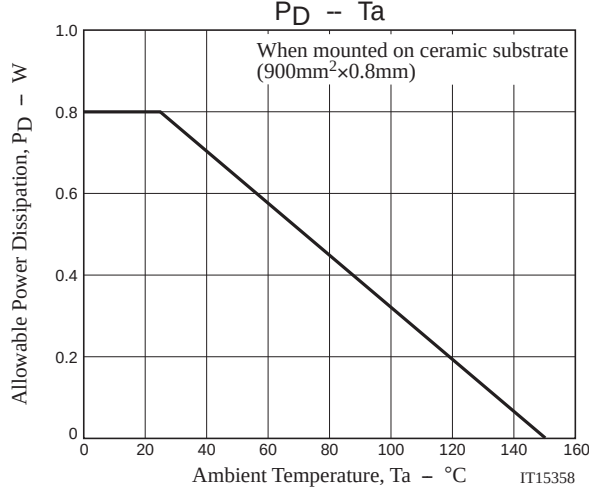
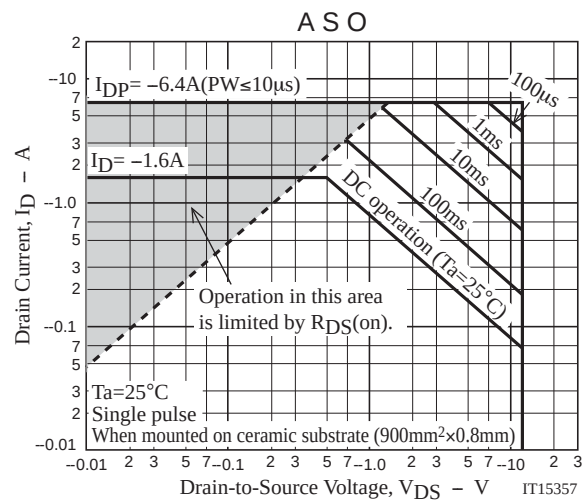
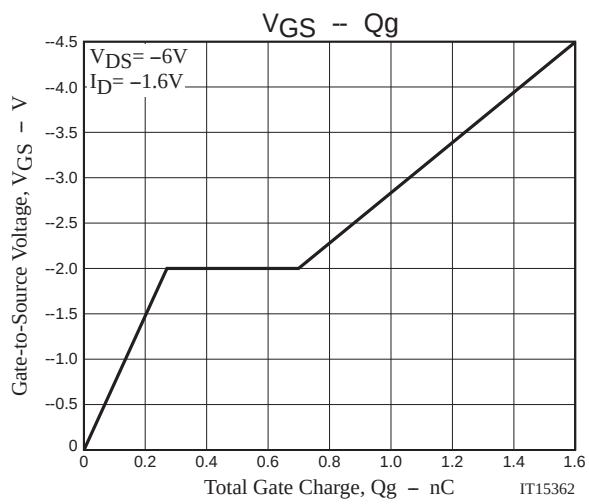
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
SCH1334-TL-H	SCH6	5,000pcs./reel	Pb Free and Halogen Free





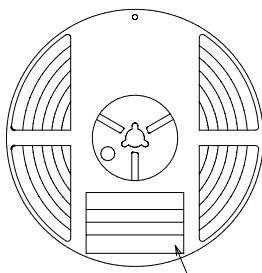
Taping Specification

SCH1334-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

Packing method



Reel label

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.

Type No. →

LOT No. →

Quantity →

Origin →

69	(P) TYPE 000000000
	(1) LOT 00
	(Q) QTY 0,000 (1) LEAD FREE *
	(Z) SPECIAL
	Z0722005310C
	ASSEMBLY:**** (DIFFUSION:****)

108	TYPE CODE
	C000000000000
	TYPE
	QTY 0,000 PCS (1) LEAD FREE *
	LOT
	PACKAGE
	SPECIAL
	Z0722005310C
	ASSEMBLY:**** (DIFFUSION:****)

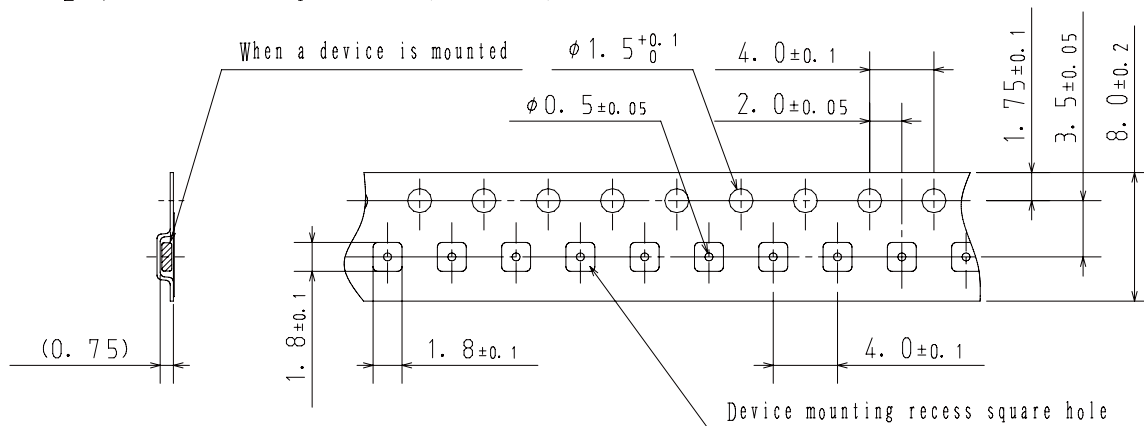
NOTE (1)

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

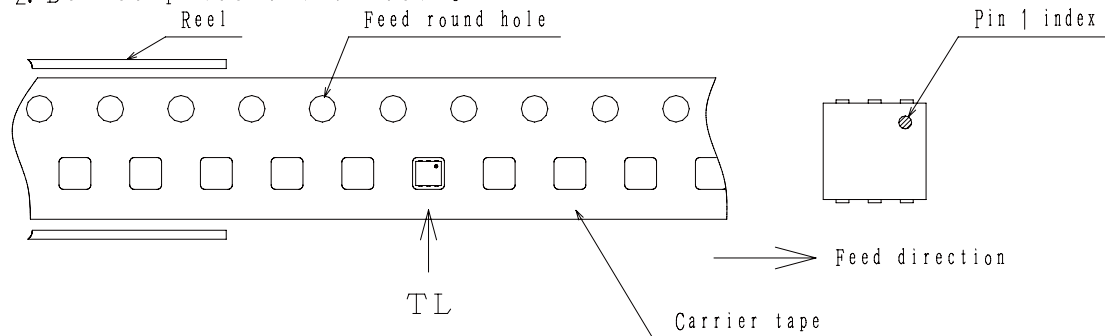
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

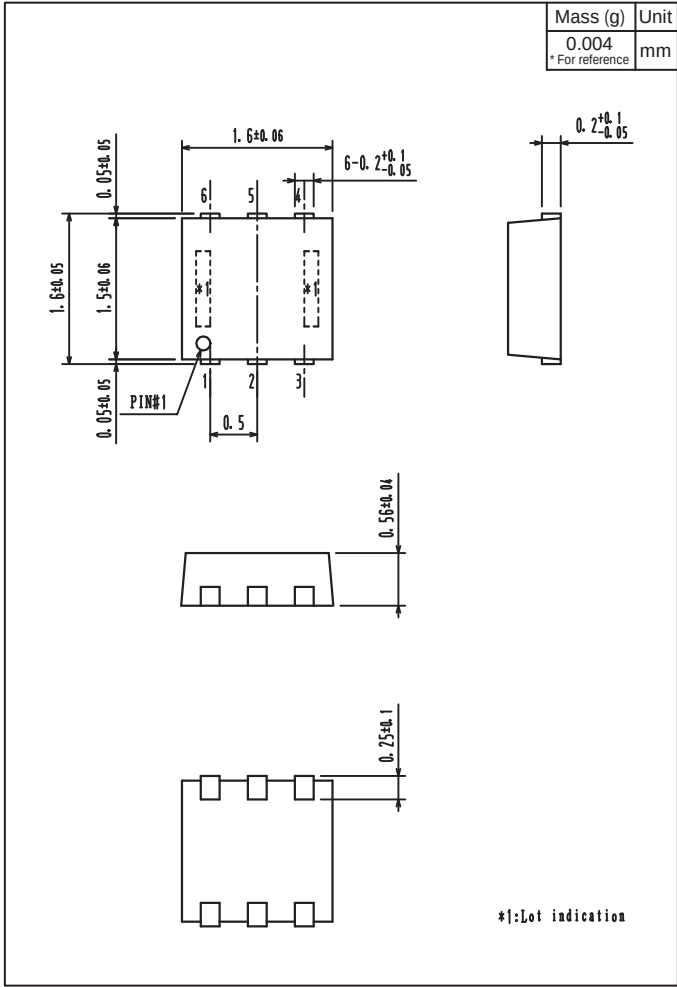


2-2. Device placement direction

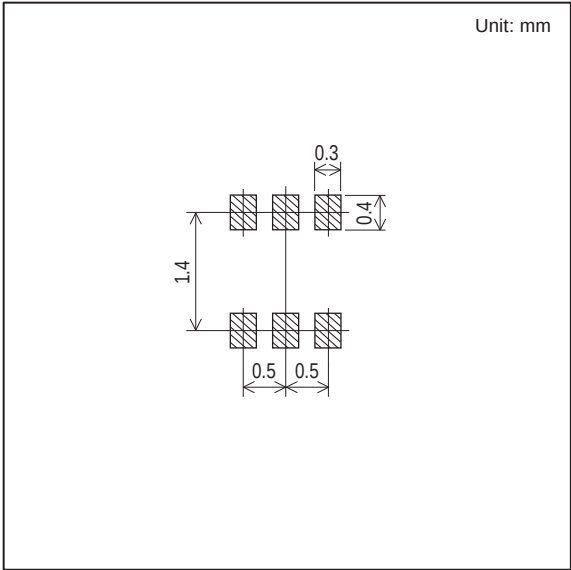


Those with pin 1 index on the feed hole side.....TL

Outline Drawing
SCH1334-TL-H



Land Pattern Example



Note on usage : Since the SCH1334 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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