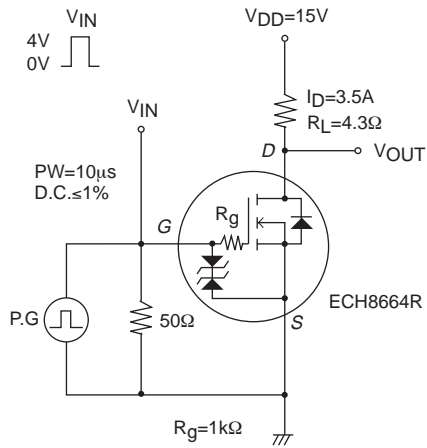


# ECH8664R

## Electrical Characteristics at Ta=25°C

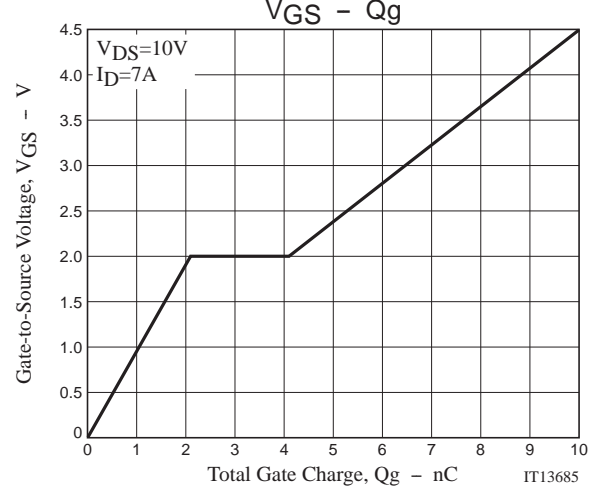
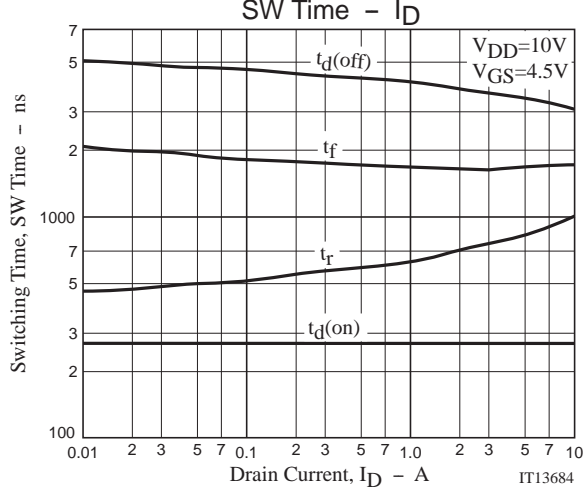
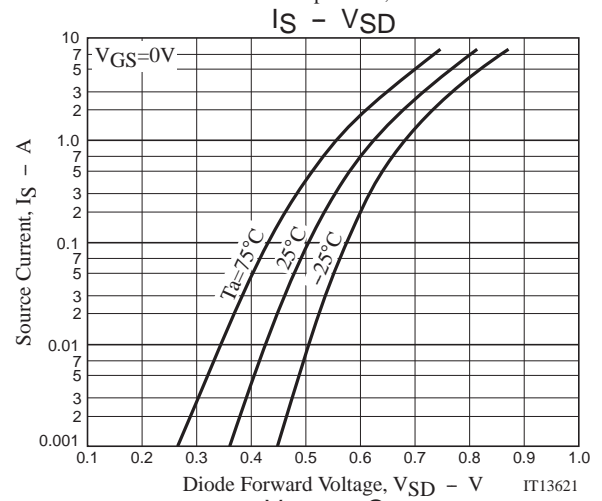
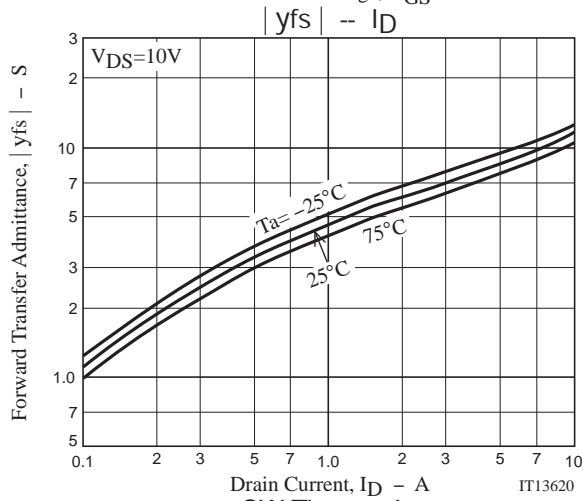
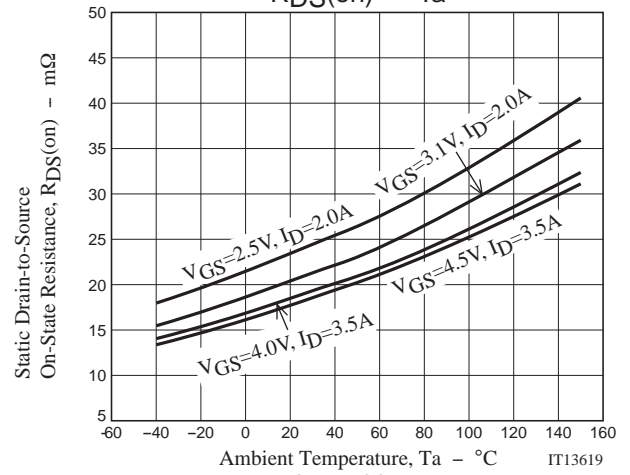
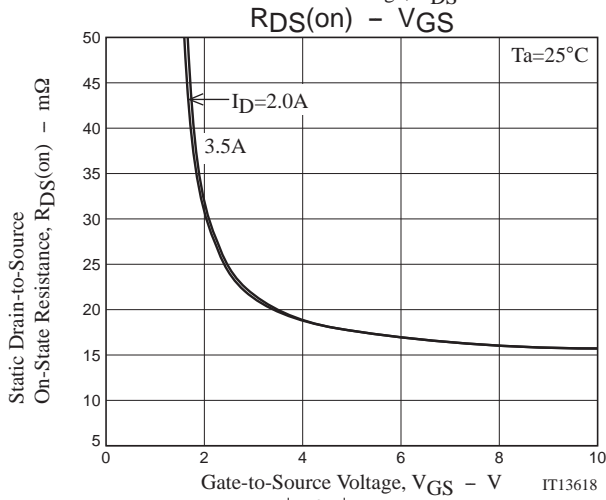
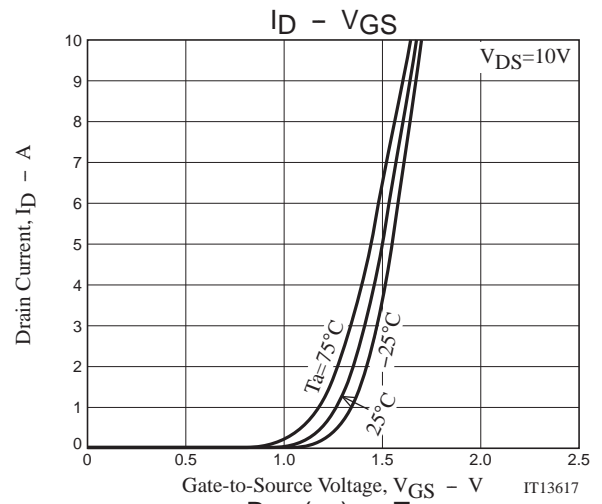
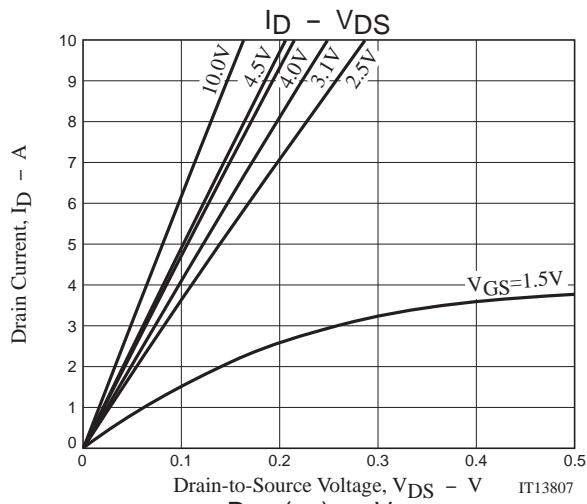
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0V$	30			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=30V, V_{GS}=0V$			1	$\mu A$
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 8V, V_{DS}=0V$			$\pm 10$	$\mu A$
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	0.5		1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, I_D=3.5A$	4.5	7.5		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=3.5A, V_{GS}=4.5V$	12.5	18	23.5	$m\Omega$
	$R_{DS(on)2}$	$I_D=3.5A, V_{GS}=4.0V$	13	19	25	$m\Omega$
	$R_{DS(on)3}$	$I_D=2A, V_{GS}=3.1V$	14.5	21	27.3	$m\Omega$
	$R_{DS(on)4}$	$I_D=2A, V_{GS}=2.5V$	14.5	24	34	$m\Omega$
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		270		ns
Rise Time	$t_r$			850		ns
Turn-OFF Delay Time	$t_{d(off)}$			3300		ns
Fall Time	$t_f$			1700		ns
Total Gate Charge	$Q_g$	$V_{DS}=10V, V_{GS}=4.5V, I_D=7A$		10		nC
Gate-to-Source Charge	$Q_{gs}$			2.1		nC
Gate-to-Drain "Miller" Charge	$Q_{gd}$			2.0		nC
Diode Forward Voltage	$V_{SD}$	$I_S=7A, V_{GS}=0V$		0.75	1.2	V

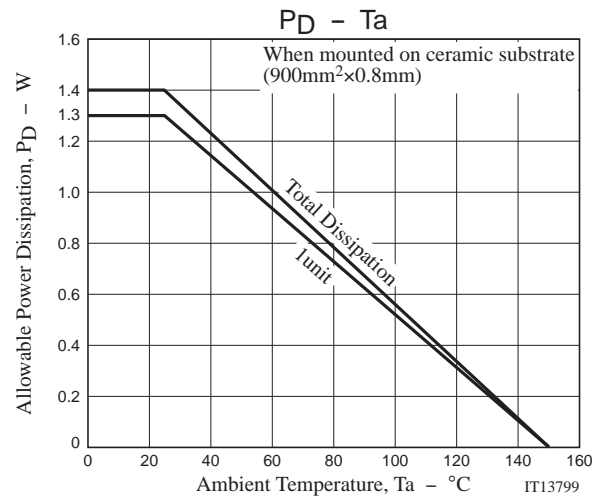
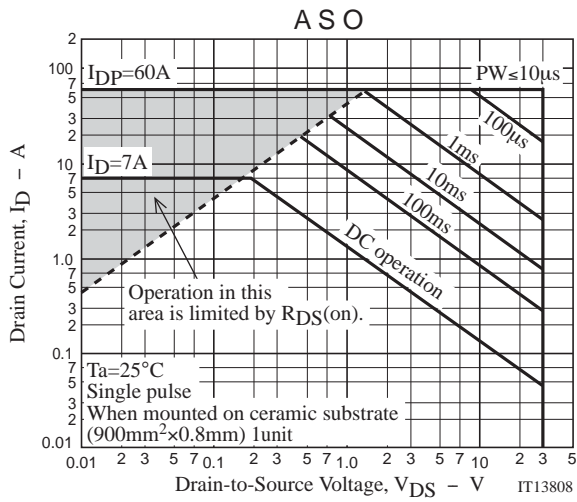
## Switching Time Test Circuit



## Ordering Information

Device	Package	Shipping	memo
ECH8664R-TL-H	ECH8	3,000pcs./reel	Pb Free and Halogen Free





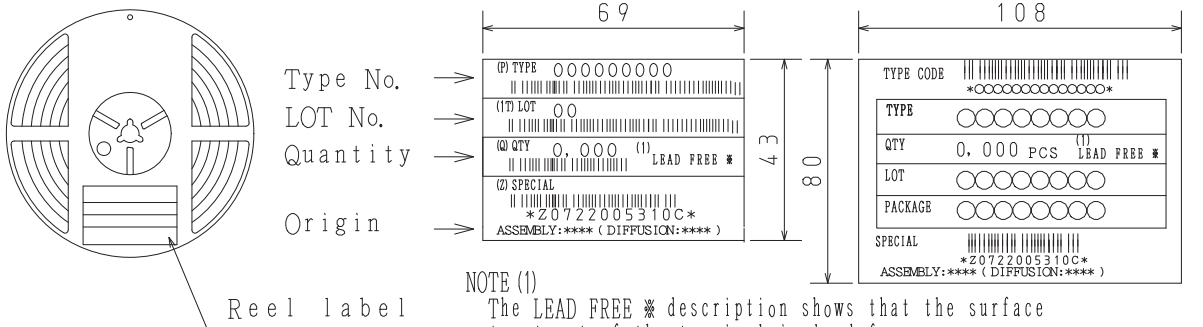
## Embossed Taping Specification

### ECH8664R-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)
ECH8	CPH6	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

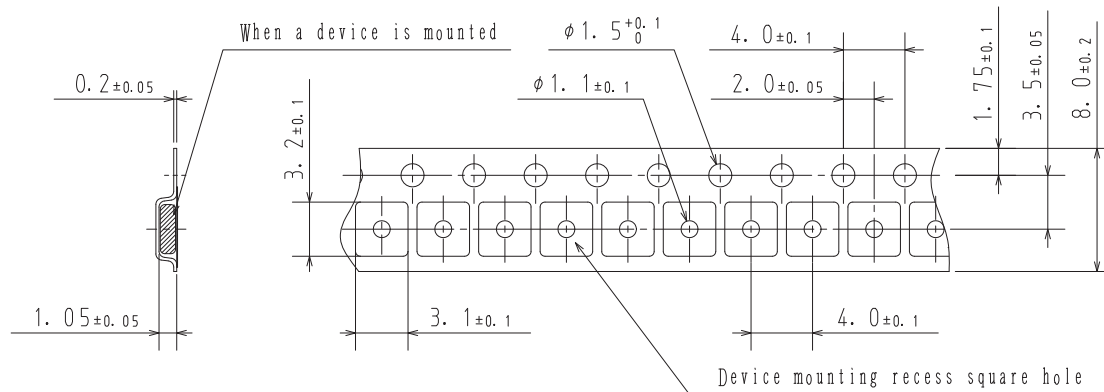
#### Packing method



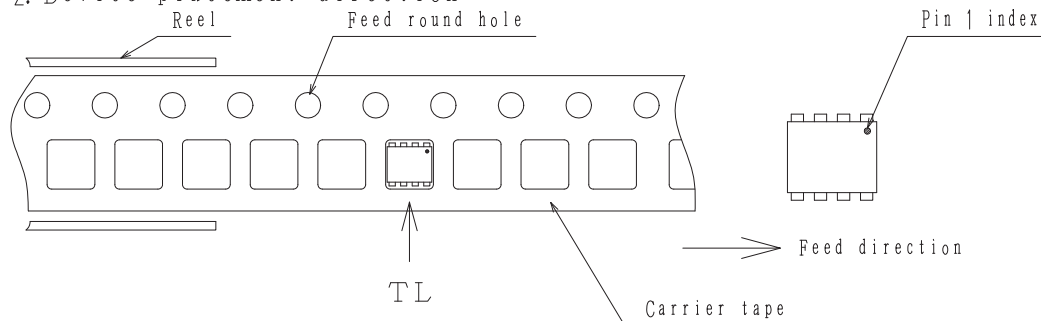
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

#### 2. Taping configuration

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



##### 2-2. Device placement direction

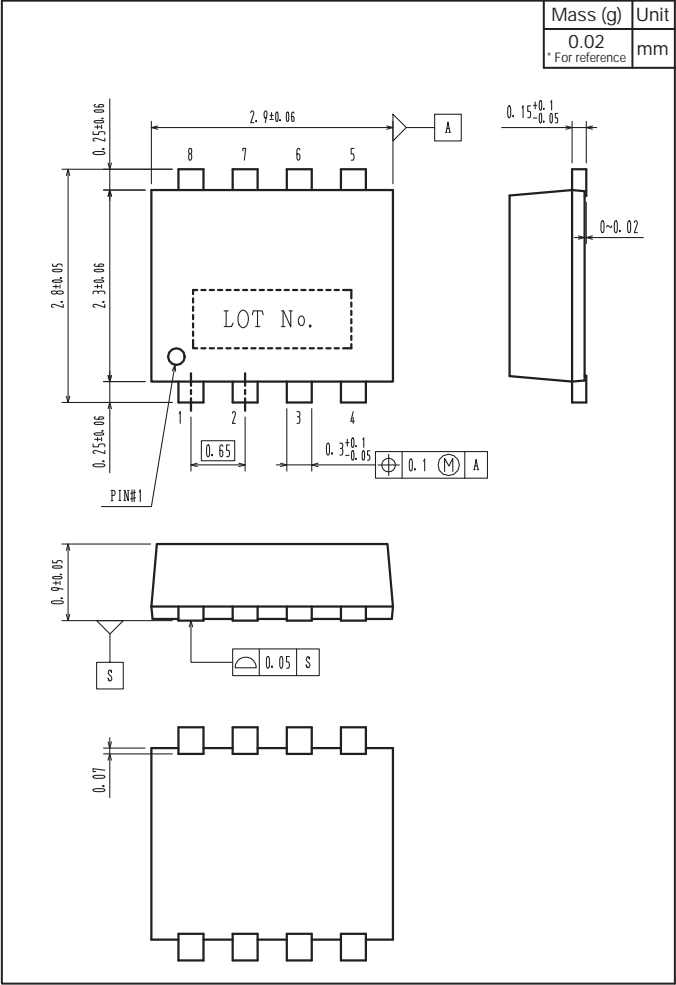


Those with pin 1 index on the feed hole side.....TL

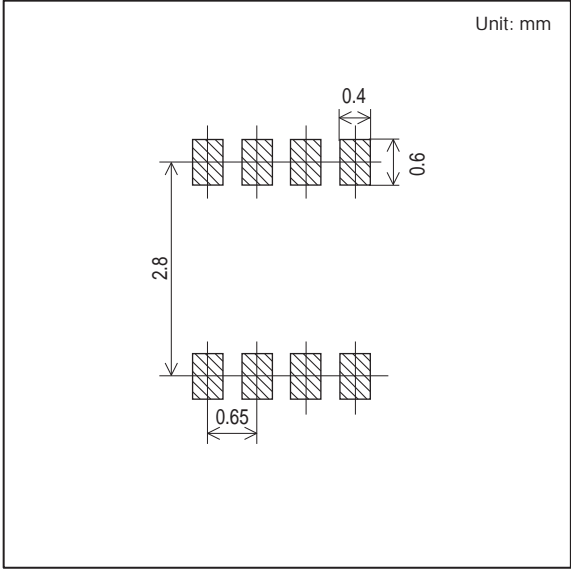
ECH8664R

Outline Drawing

ECH8664R-TL-H



Land Pattern Example



Note on usage : Since the ECH8664R is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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