

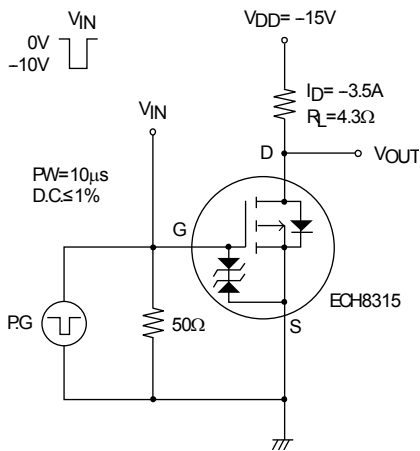
# ECH8315

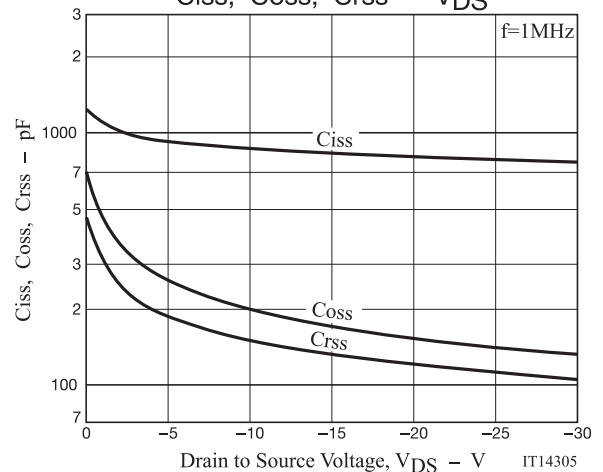
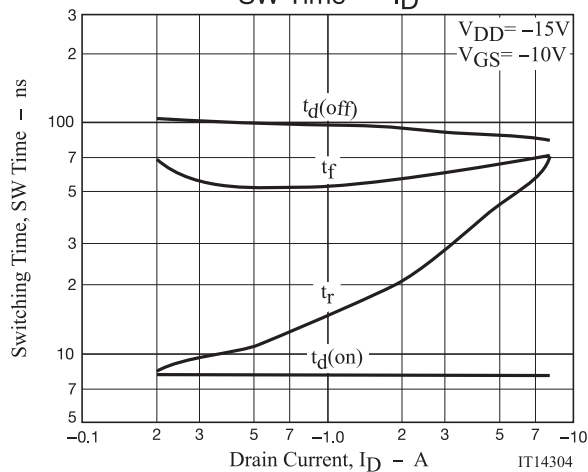
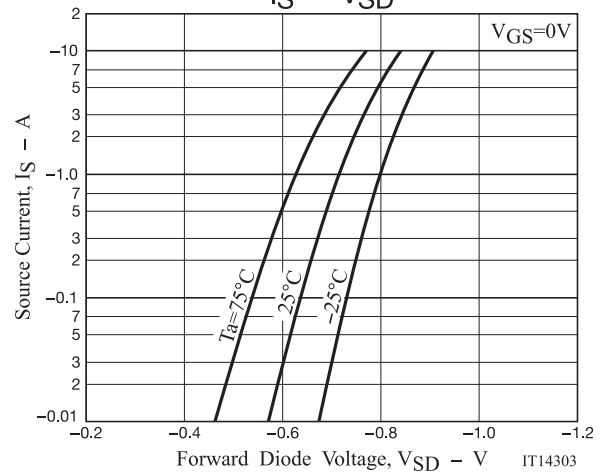
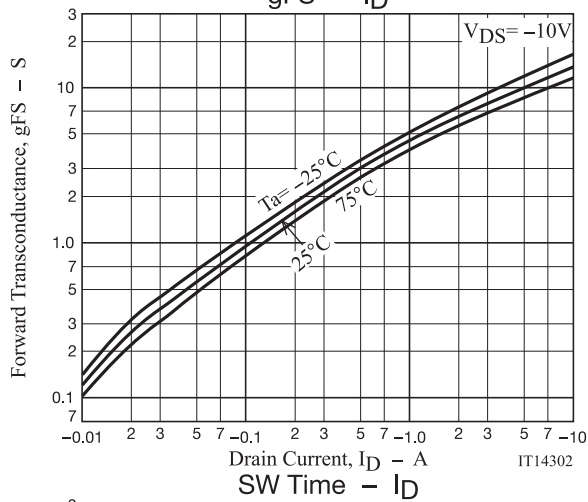
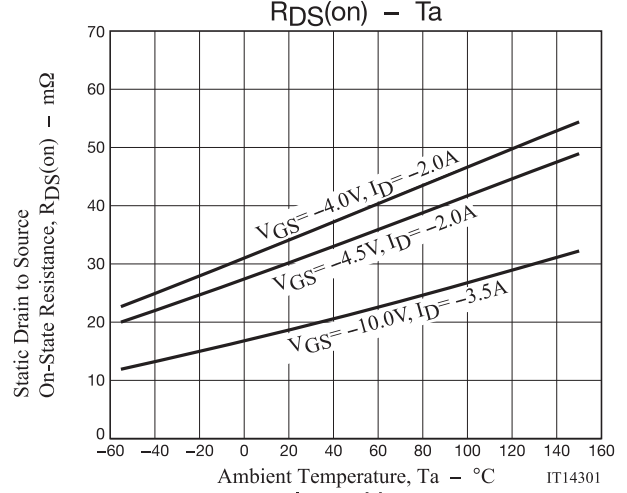
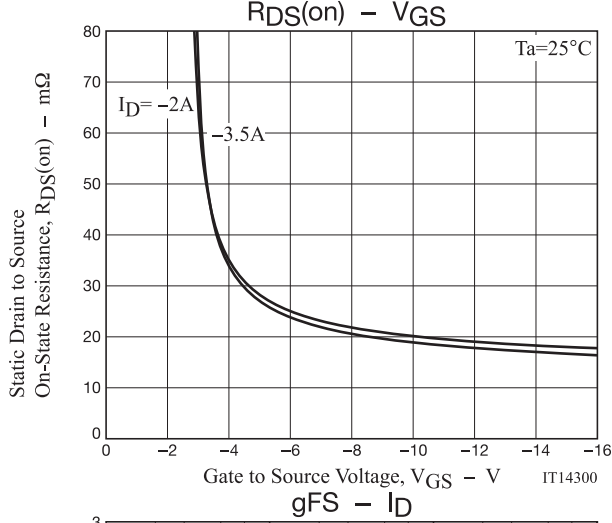
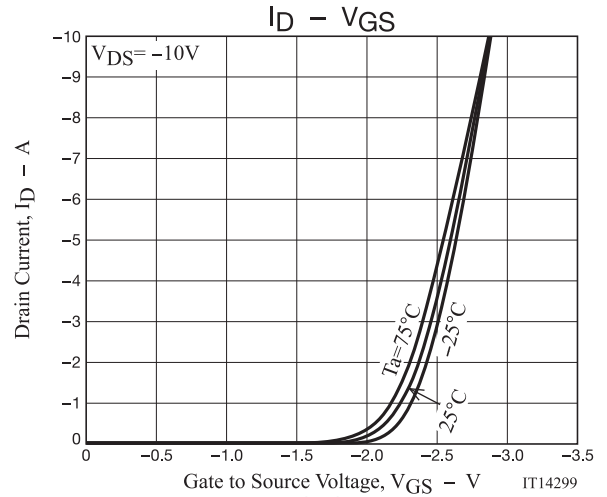
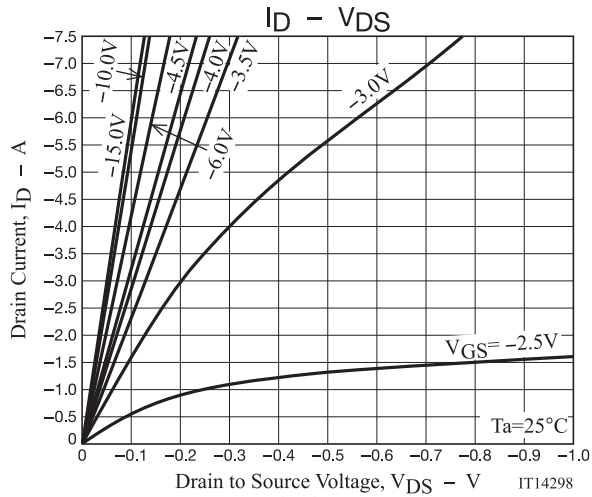
## ELECTRICAL CHARACTERISTICS at Ta = 25°C (Note 2)

Parameter	Symbol	Conditions	Value			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	$I_{GSS}$	$V_{GS} = \pm 16V, V_{DS} = 0V$			$\pm 10$	$\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = -10V, I_D = -1mA$	-1.2		-2.6	V
Forward Transconductance	$g_{FS}$	$V_{DS} = -10V, I_D = -3.5A$	5	8.4		S
Static Drain to Source On-State Resistance	$R_{DS(on)1}$	$I_D = -3.5A, V_{GS} = -10V$		19	25	$m\Omega$
	$R_{DS(on)2}$	$I_D = -2A, V_{GS} = -4.5V$		31	44	$m\Omega$
	$R_{DS(on)3}$	$I_D = -2A, V_{GS} = -4V$		35	49	$m\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = -10V, f = 1MHz$		875		pF
Output Capacitance	$C_{oss}$			200		pF
Reverse Transfer Capacitance	$C_{rss}$			150		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		8.1		ns
Rise Time	$t_r$			33		ns
Turn-OFF Delay Time	$t_d(off)$			92		ns
Fall Time	$t_f$			60		ns
Total Gate Charge	$Q_g$	$V_{DS} = -15V, V_{GS} = -10V, I_D = -7.5A$		18		nC
Gate to Source Charge	$Q_{gs}$			2.1		nC
Gate to Drain "Miller" Charge	$Q_{gd}$			4.7		nC
Forward Diode Voltage	$V_{SD}$	$I_S = -7.5A, V_{GS} = 0V$		-0.82	-1.2	V

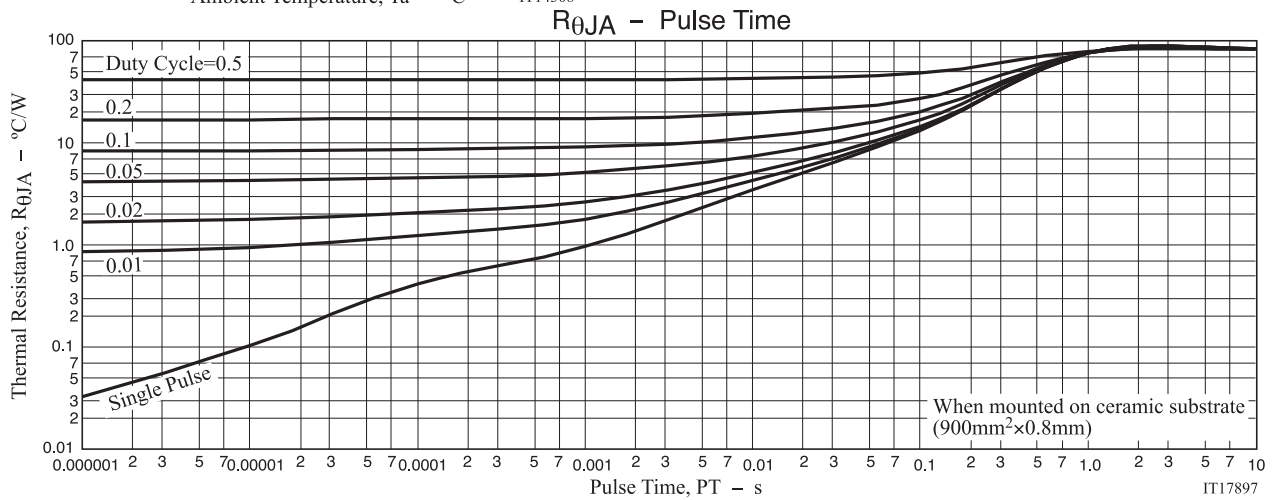
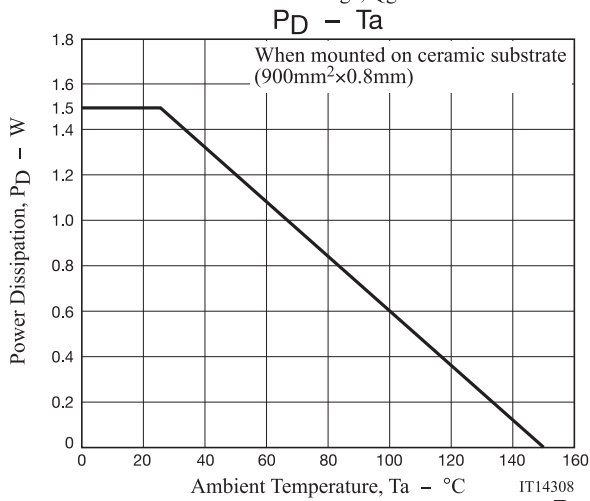
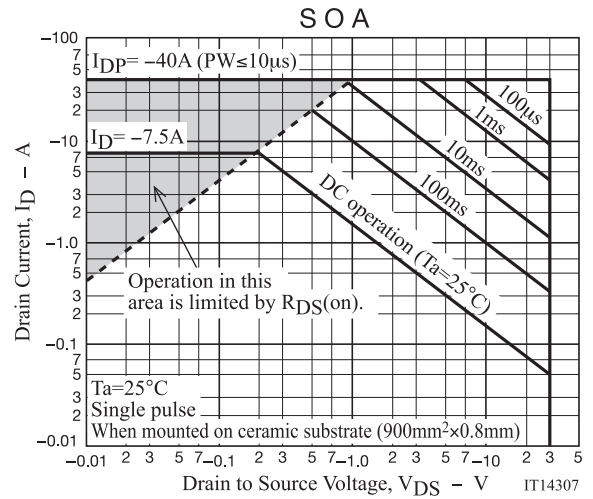
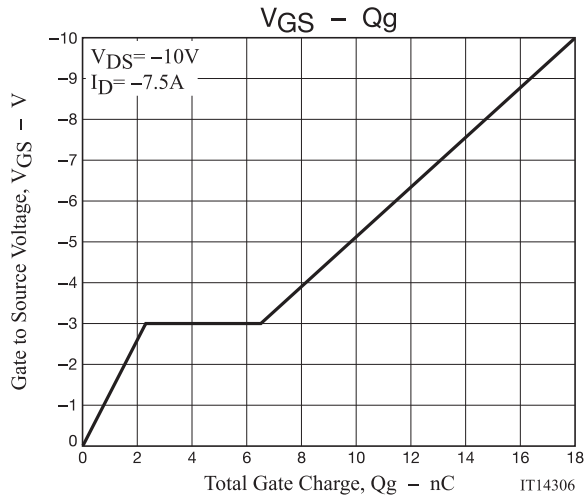
Note 2 : Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted.  
Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

## Switching Time Test Circuit





# ECH8315

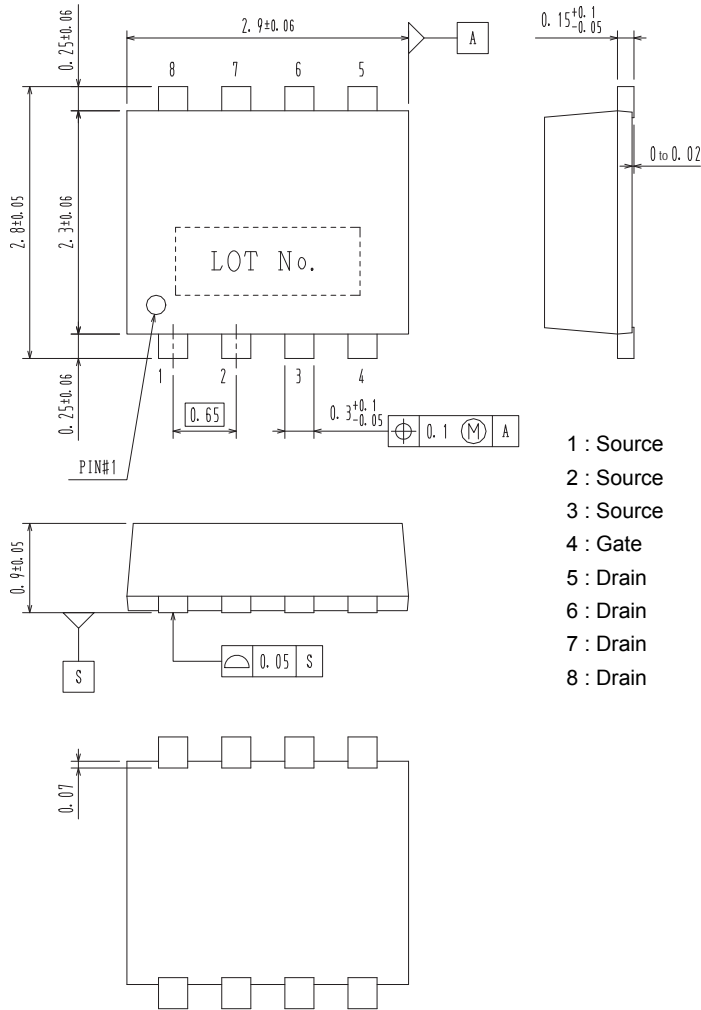


# ECH8315

## PACKAGE DIMENSIONS

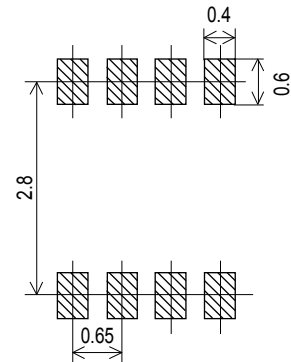
unit : mm

SOT-28FL / ECH8  
CASE 318BF  
ISSUE O



- 1 : Source
- 2 : Source
- 3 : Source
- 4 : Gate
- 5 : Drain
- 6 : Drain
- 7 : Drain
- 8 : Drain

### Recommended Soldering Footprint



## ORDERING INFORMATION

Device	Marking	Package	Shipping (Qty / Packing)
ECH8315-TL-H	JS	SOT-28FL / ECH8 (Pb-Free / Halogen Free)	3,000 / Tape & Reel
ECH8315-TL-W			

† For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D. [http://www.onsemi.com/pub\\_link/Collateral/BRD8011-D.PDF](http://www.onsemi.com/pub_link/Collateral/BRD8011-D.PDF)

Note on usage : Since the ECH8315 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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