

### Field Effect Transistor

### Silicon N Channel MOS Type ( $\pi$ -MOS II)

### High Speed, High Current DC-DC Converter,

### Relay Drive and Motor Drive Applications

#### Features

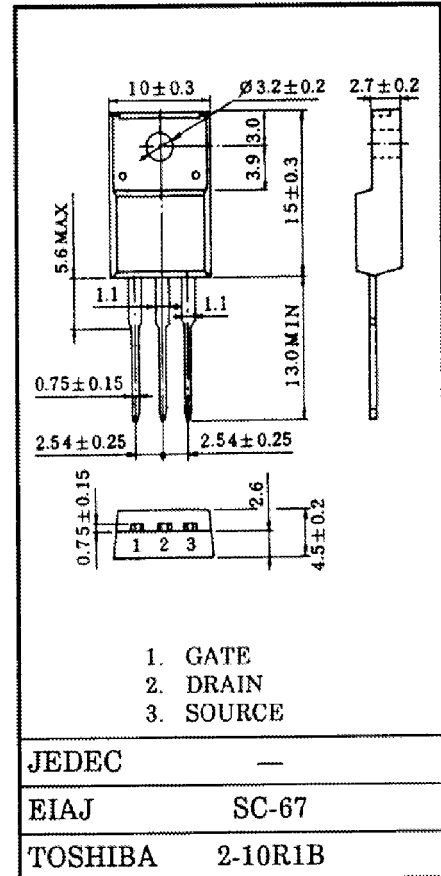
- High Voltage
  - $V_{(BR)DSS} = 900V$
- High Forward Transfer Admittance
  - $|Y_{fs}| = 1.0S$  (Typ.) @  $I_D = 1.5A$
- Low Leakage Current
  - $I_{DSS} = 300\mu A$  (Max.) @  $V_{DS} = 900V$
- Enhancement-Mode

#### Absolute Maximum Ratings ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	$V_{DSS}$	900	V
Gate-Source Voltage	$V_{GSS}$	$\pm 30$	V
Drain Current	DC	$I_D$	3
	Pulse	$I_{DP}$	5
Drain Power Dissipation ( $T_c = 25^\circ C$ )	$P_D$	40	W
Channel Temperature	$T_{ch}$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ C$

This transistor is an electrostatic sensitive device. Please handle with care.

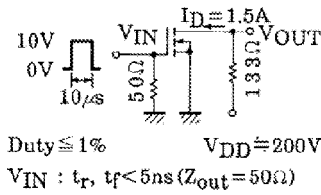
Industrial Applications Unit in mm

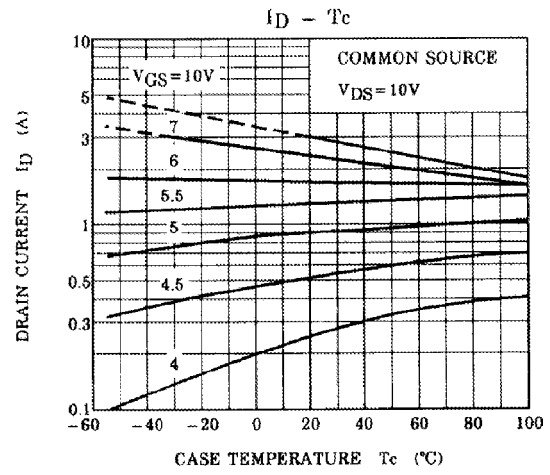
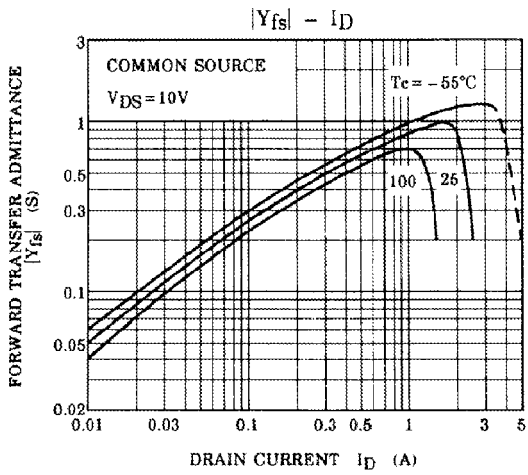
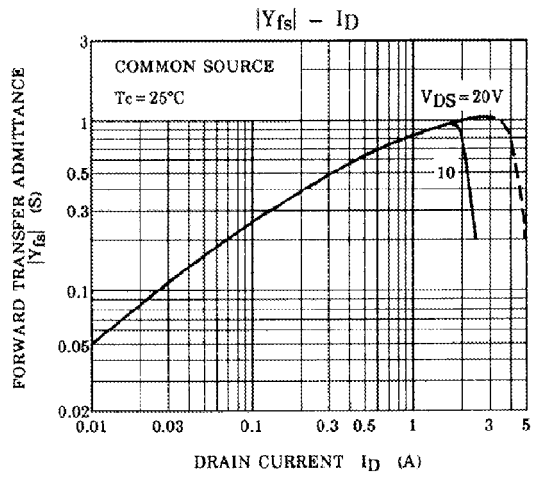
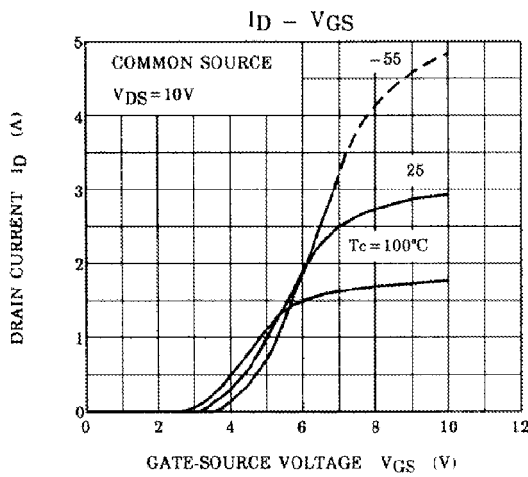
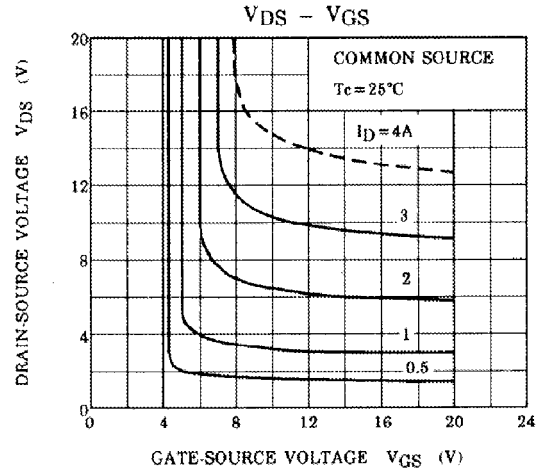
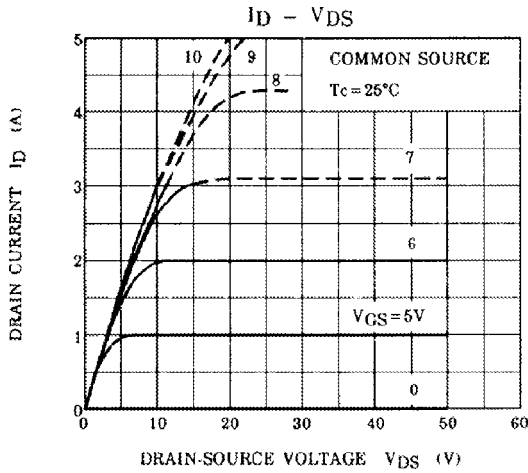


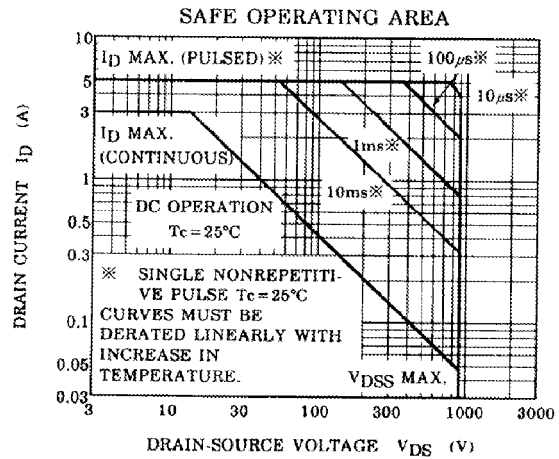
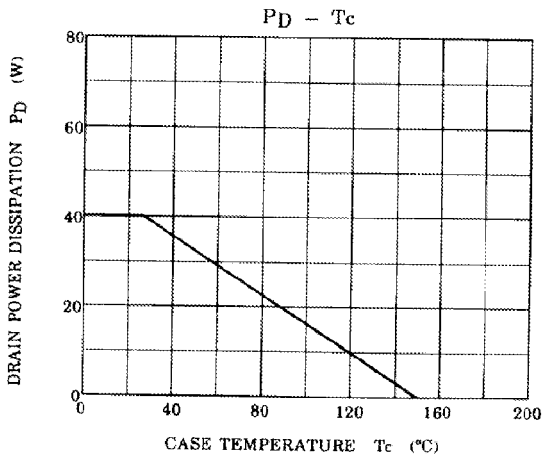
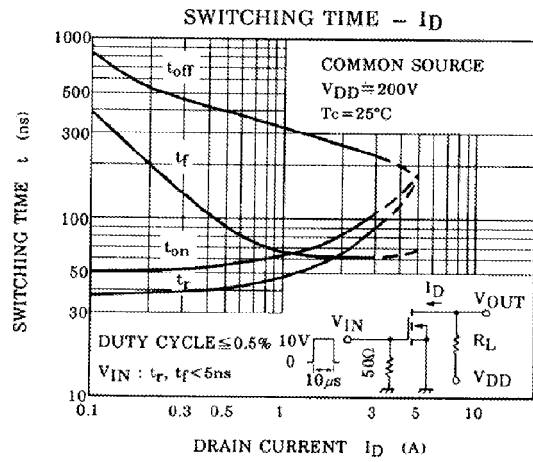
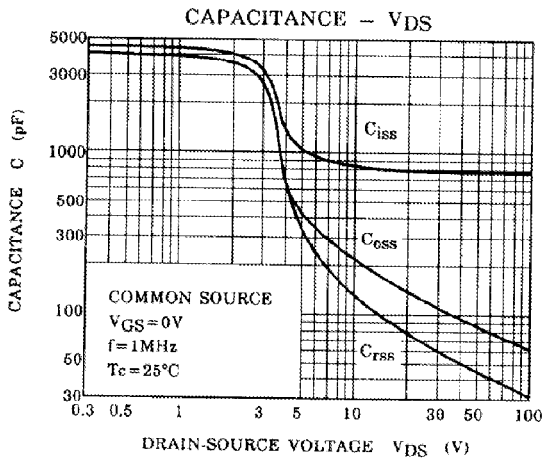
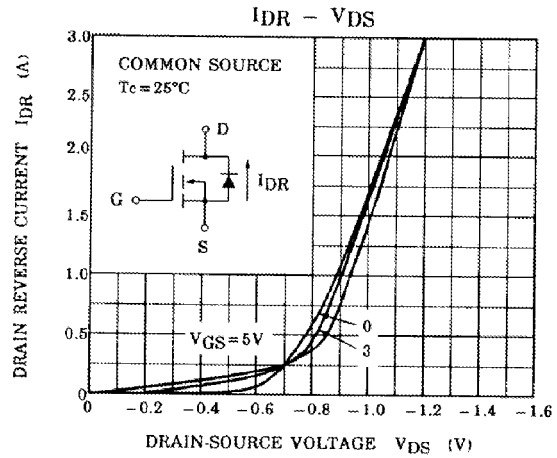
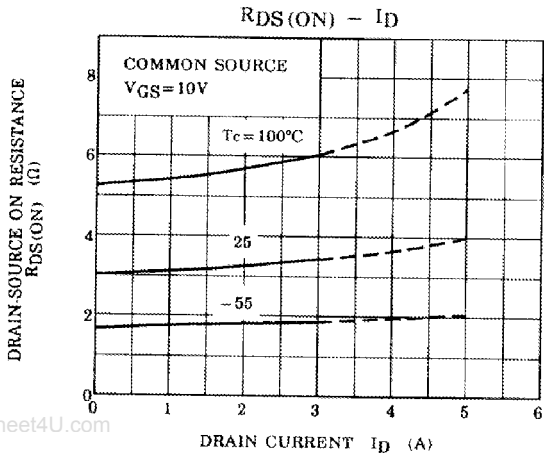
Weight : 1.9g

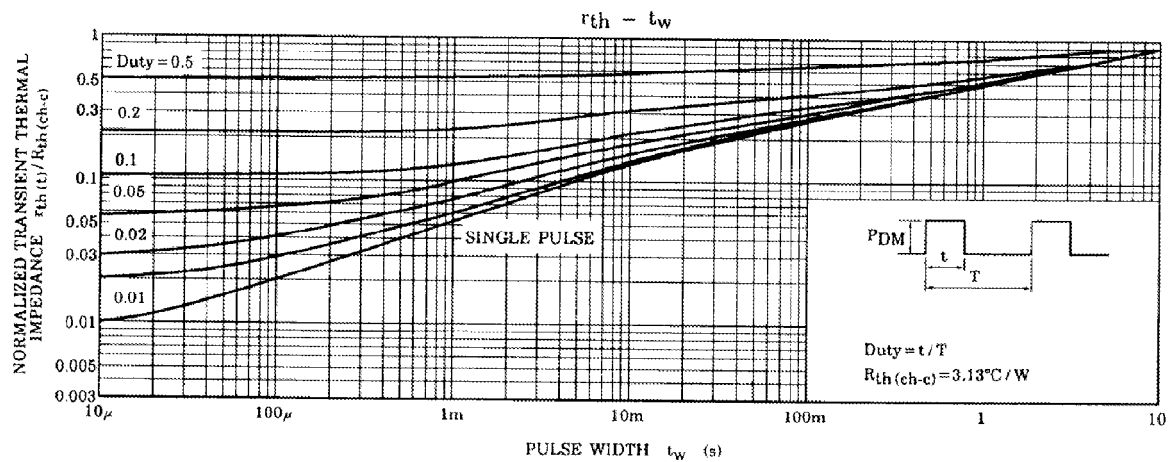
## Electrical Characteristics (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	$I_{GSS}$	$V_{GS} = \pm 25V, V_{DS} = 0V$	–	–	$\pm 100$	nA
Drain Cut-off Current	$I_{DSS}$	$V_{DS} = 900V, V_{GS} = 0V$	–	–	300	$\mu A$
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 10mA, V_{GS} = 0V$	900	–	–	V
Gate Threshold Voltage	$V_{th}$	$V_{DS} = 10V, I_D = 1mA$	1.5	–	3.5	V
Drain-Source Resistance	$R_{DS(ON)}$	$I_D = 1.5A, V_{GS} = 10V,$	–	3.3	4.3	$\Omega$
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10V, I_D = 1.5A$	0.5	1.0	–	S
Input Capacitance	$C_{iss}$	$V_{DS} = 25V, V_{GS} = 0V,$ $f = 1MHz$	–	800	1100	pF
Reverse Transfer Capacitance	$C_{rss}$		–	70	120	
Output Capacitance	$C_{oss}$		–	120	200	
Switching Time	Rise Time	$t_r$	–	55	120	ns
	Turn-on Time	$t_{on}$	–	70	165	
	Fall Time	$t_f$	–	60	120	
	Turn-off Time	$t_{off}$	–	280	550	









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