

### Features

- Low ON-state resistance.
- Ultrahigh-speed switching.
- Micaless package facilitating easy mounting.

### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

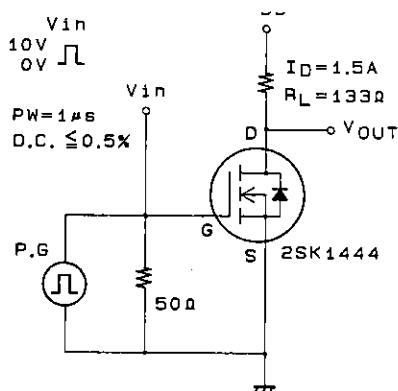
Parameter	Symbol	Value	unit	
Drain-to-Source Voltage	$V_{DS}$	450	V	
Gate-to-Source Voltage	$V_{GS}$	$\pm 30$	V	
Drain Current(DC)	$I_D$	3	A	
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10\mu\text{s}, \text{duty cycle} \leq 1\%$	12	A
Allowable Power Dissipation	$P_D$	2.0	W	
$T_c = 25^\circ\text{C}$				
Channel Temperature	$T_{ch}$	25	W	
Storage Temperature	$T_{stg}$	$-55 \text{ to } +150$	$^\circ\text{C}$	

### Electrical Characteristics at $T_a = 25^\circ\text{C}$

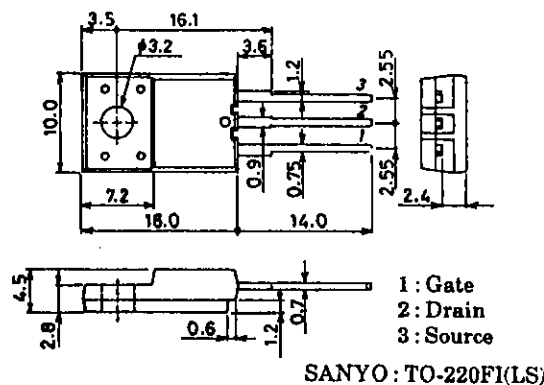
Parameter	Symbol	Test Conditions	min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	450			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 450\text{V}, V_{GS} = 0$			1.0	mA
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 30\text{V}, V_{DS} = 0$			$\pm 100$	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\text{mA}$	2.0		3.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, I_D = 0.5\text{A}$	1.1	2.2		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D = 0.5\text{A}, V_{GS} = 10\text{V}$		2.0	2.6	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		400		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		60		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		25		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		12		ns
Rise Time	$t_r$	"		20		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		80		ns
Fall Time	$t_f$	"		35		ns
Diode Forward Voltage	$V_{SD}$	$I_S = 3\text{A}, V_{GS} = 0$			1.8	V

(Note) Be careful in handling the 2SK1444 because it has no protection diode between gate and source.

### Switching Time Test Circuit

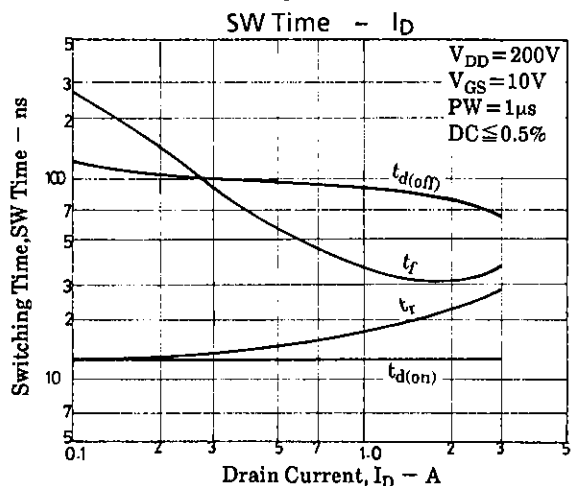
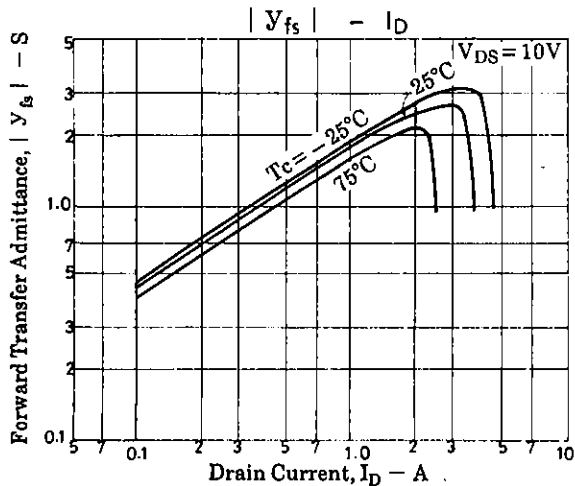
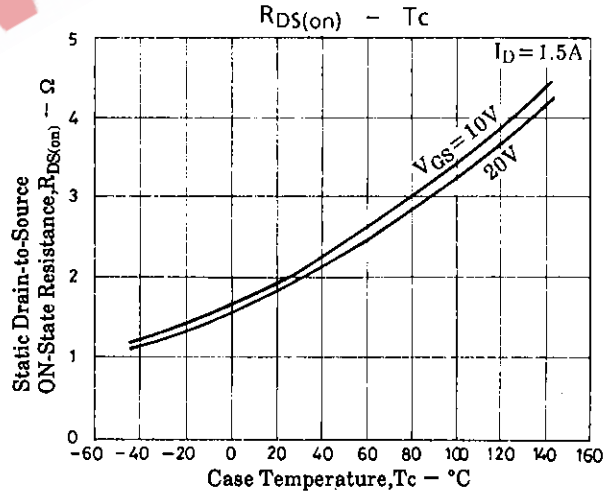
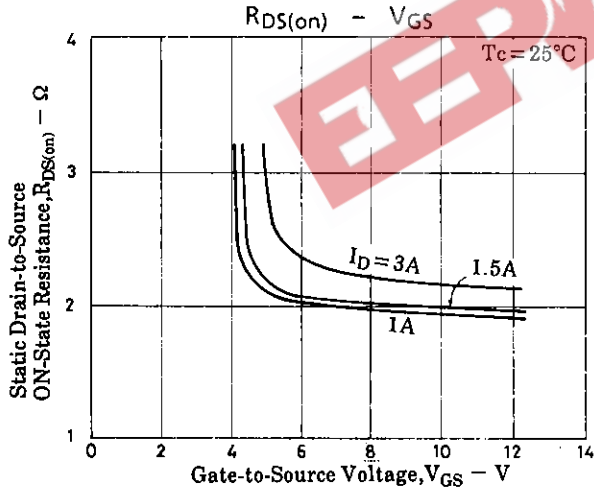
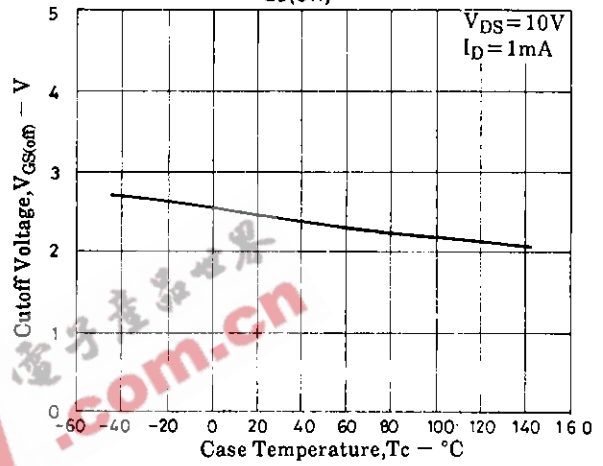
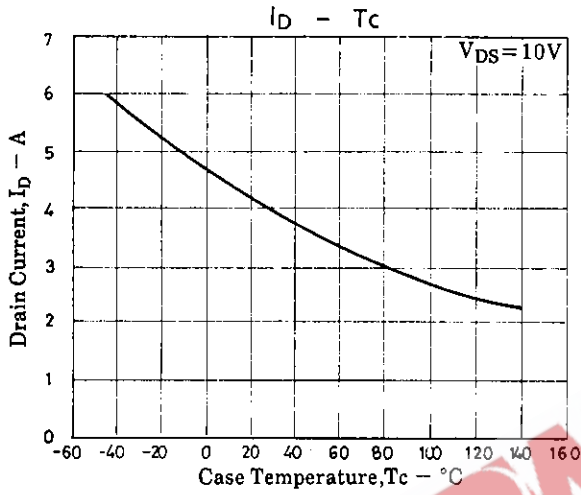
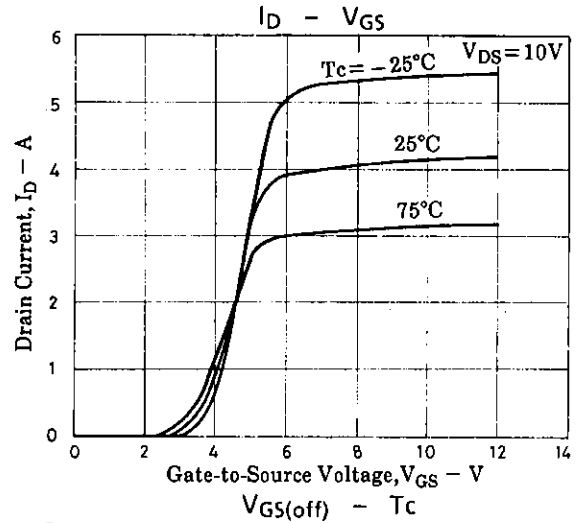
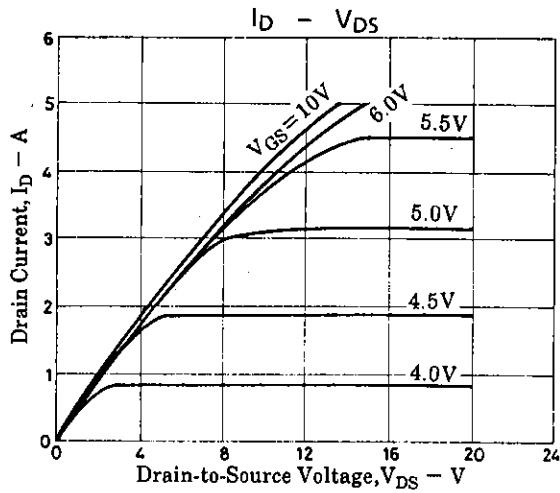


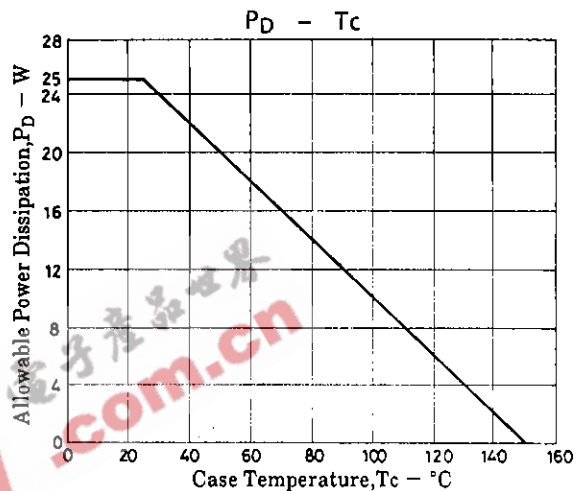
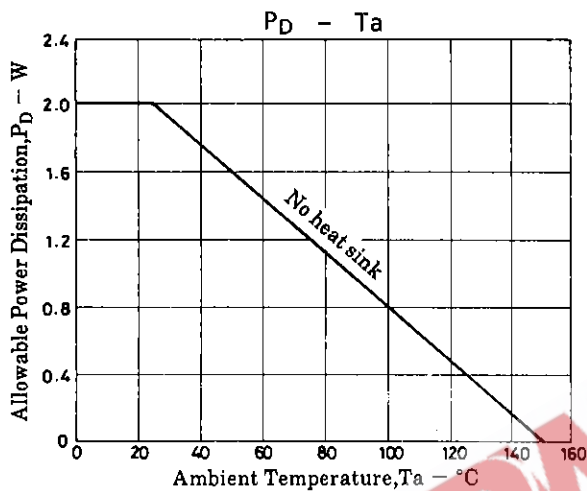
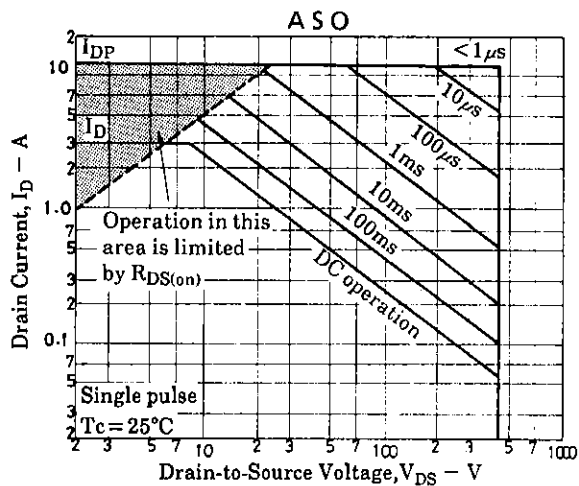
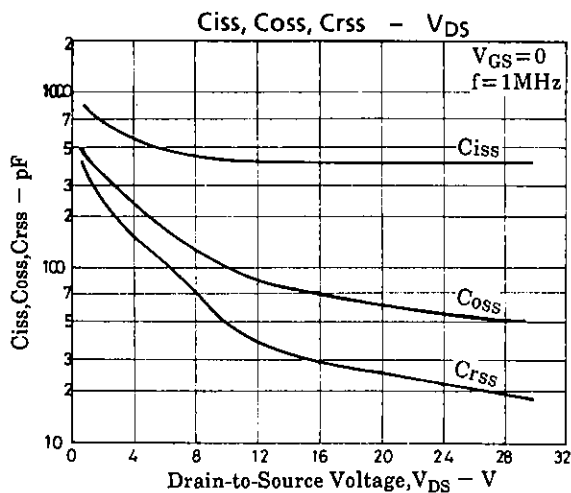
### Package Dimensions 2078B (unit : mm)



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