

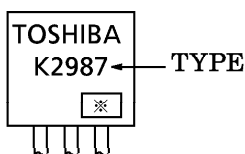
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Gate Leakage Current	I_{GSS}	$V_{GS} = \pm 16\text{ V}, V_{DS} = 0\text{ V}$	—	—	± 10	μA	
Drain Cut-off Current	I_{DSS}	$V_{DS} = 60\text{ V}, V_{GS} = 0\text{ V}$	—	—	100	μA	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 10\text{ mA}, V_{GS} = 0\text{ V}$	60	—	—	V	
	$V_{(BR)DSX}$	$I_D = 10\text{ mA}, V_{GS} = -20\text{ V}$	40	—	—		
Gate Threshold Voltage	V_{th}	$V_{DS} = 10\text{ V}, I_D = 1\text{ mA}$	1.3	—	2.5	V	
Drain-Source ON Resistance	$R_{DS(ON)}$	$V_{GS} = 10\text{ V}, I_D = 35\text{ A}$	—	4.5	5.8	m Ω	
		$V_{GS} = 4\text{ V}, I_D = 35\text{ A}$	—	5.8	10		
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{ V}, I_D = 35\text{ A}$	40	80	—	S	
Input Capacitance	C_{iss}	$V_{DS} = 10\text{ V}, V_{GS} = 0\text{ V}, f = 1\text{ MHz}$	—	9300	—	pF	
Reverse Transfer Capacitance	C_{rss}		—	910	—		
Output Capacitance	C_{oss}		—	1435	—		
Switching Time	Rise Time	t_r		—	18	—	ns
	Turn-on Time	t_{on}		—	50	—	
	Fall Time	t_f		—	110	—	
	Turn-off Time	t_{off}		$V_{IN} : t_r, t_f < 5\text{ ns}$ $\text{Duty} \leq 1\%, t_w = 10\ \mu\text{s}$	—	480	
Total Gate Charge (Gate-Source Plus Gate-Drain)	Q_g	$V_{DD} \cong 48\text{ V}, V_{GS} = 10\text{ V}, I_D = 70\text{ A}$	—	210	—	nC	
Gate-Source Charge	Q_{gs}		—	145	—		
Gate-Drain ("Miller") Charge	Q_{gd}		—	65	—		

SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Continuous Drain Reverse Current	I_{DR}	—	—	—	70	A
Pulse Drain Reverse Current	I_{DRP}	—	—	—	280	A
Diode Forward Voltage	V_{DSF}	$I_{DR} = 70\text{ A}, V_{GS} = 0\text{ V}$	—	—	-1.5	V
Reverse Recovery Time	t_{rr}	$I_{DR} = 70\text{ A}, V_{GS} = 0\text{ V}$	—	60	—	ns
Reverse Recovery Charge	Q_{rr}	$dI_{DR}/dt = 50\text{ A}/\mu\text{s}$	—	50	—	nC

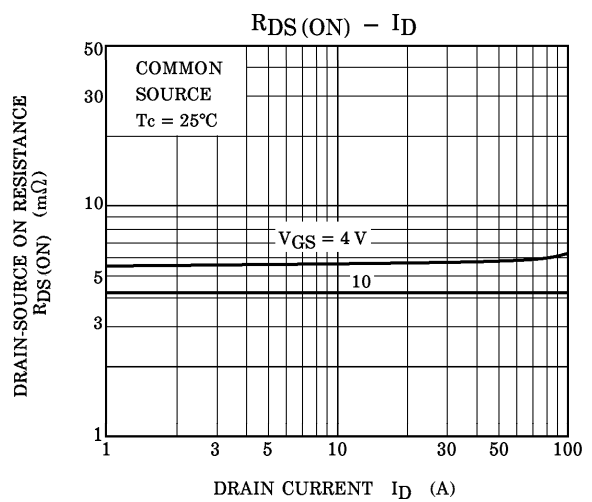
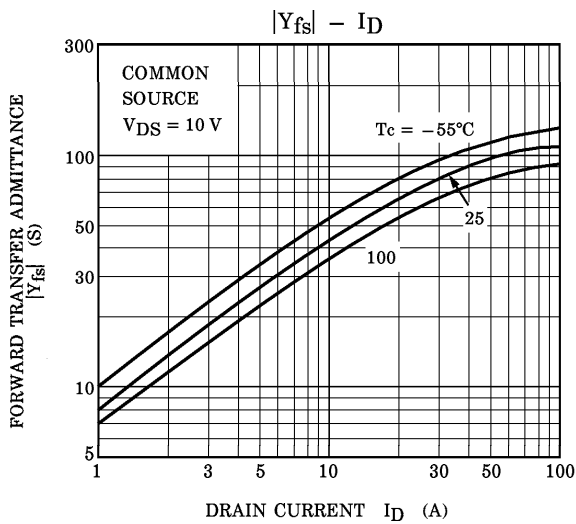
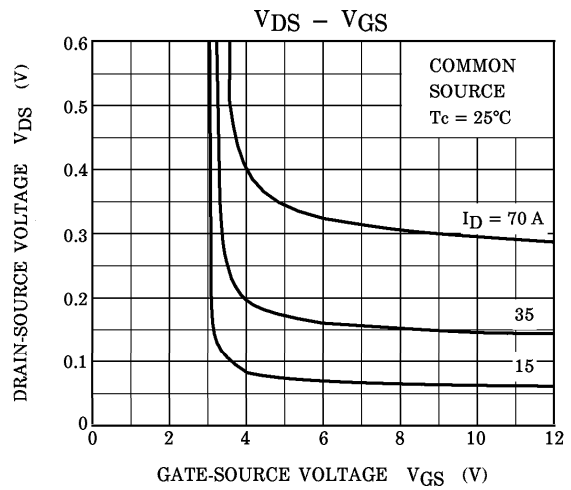
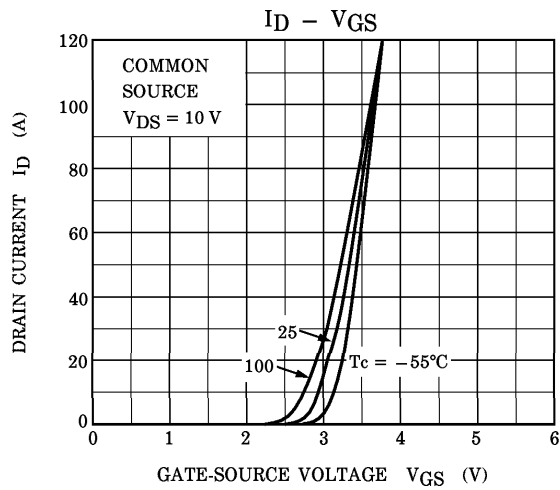
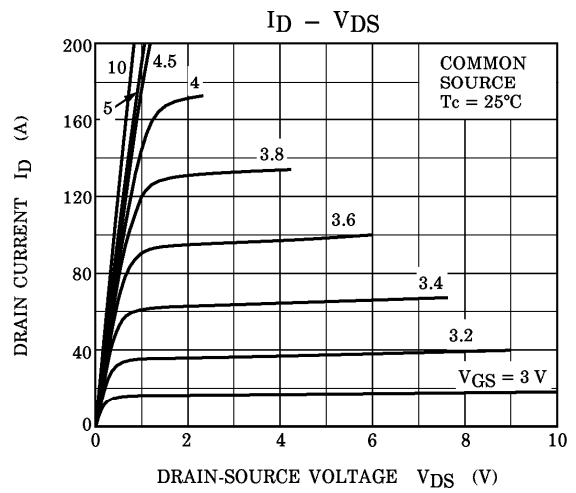
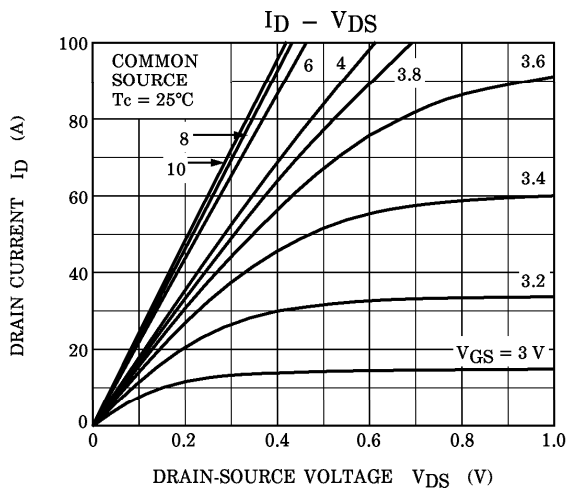
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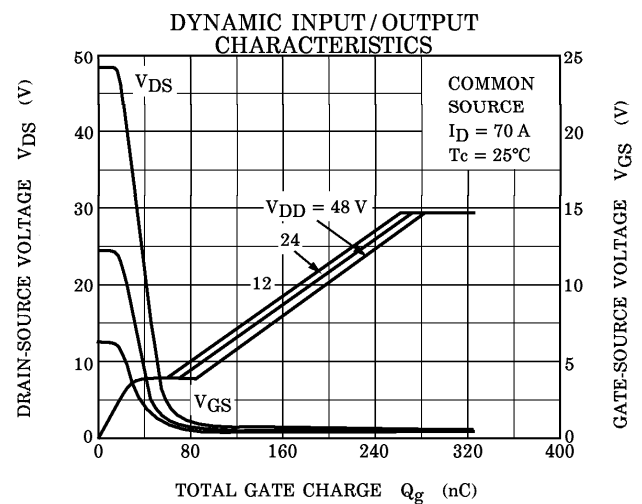
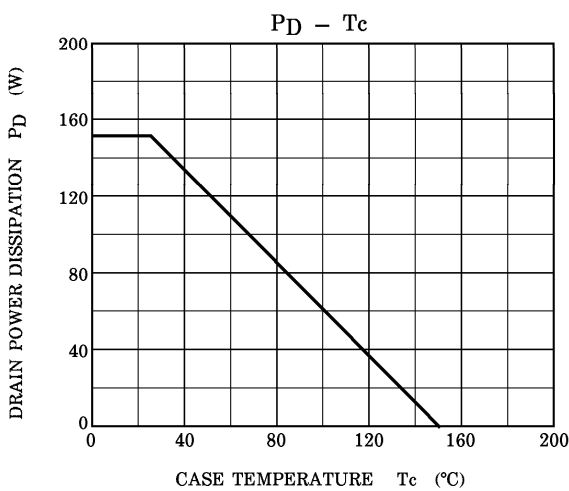
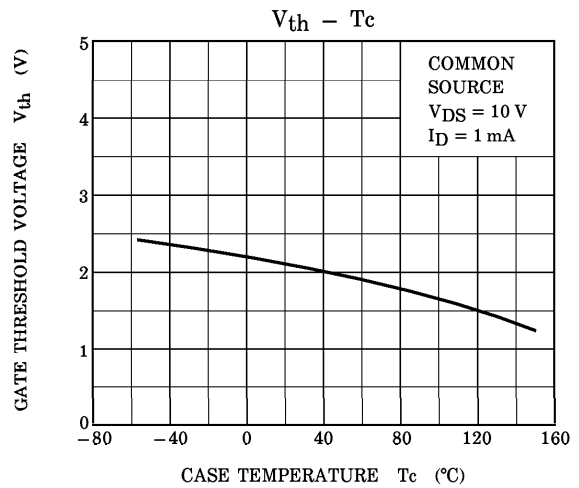
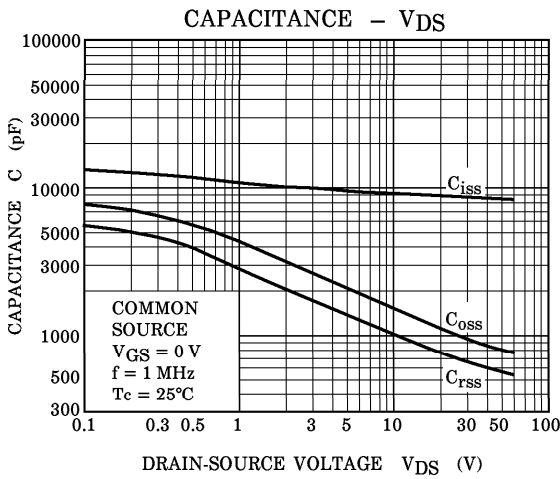
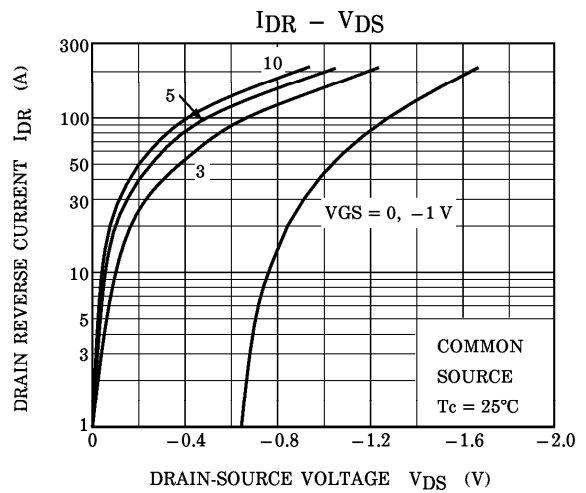
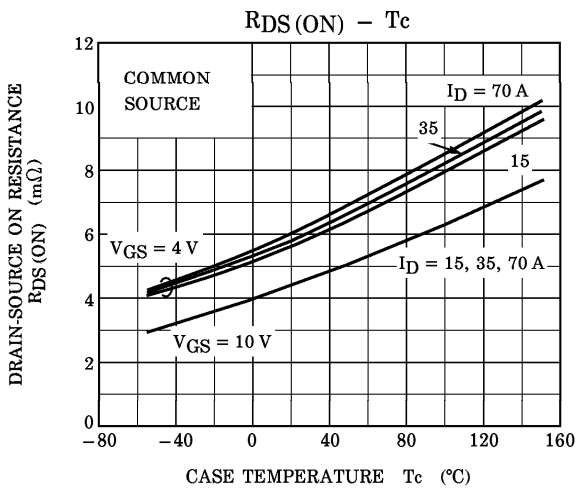


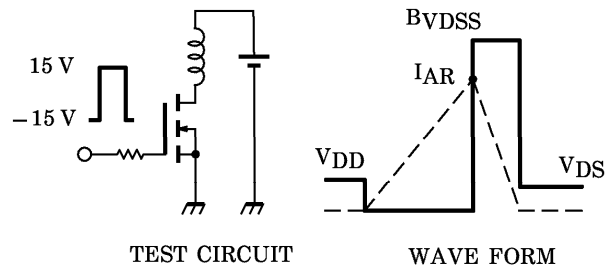
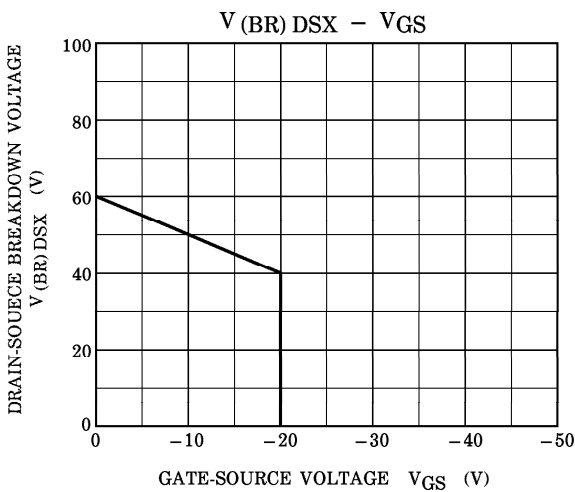
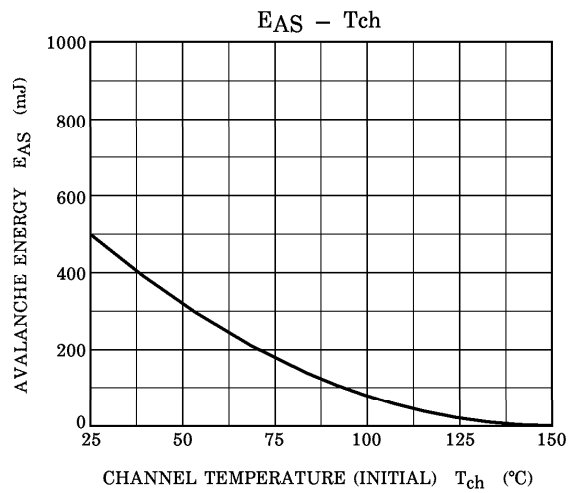
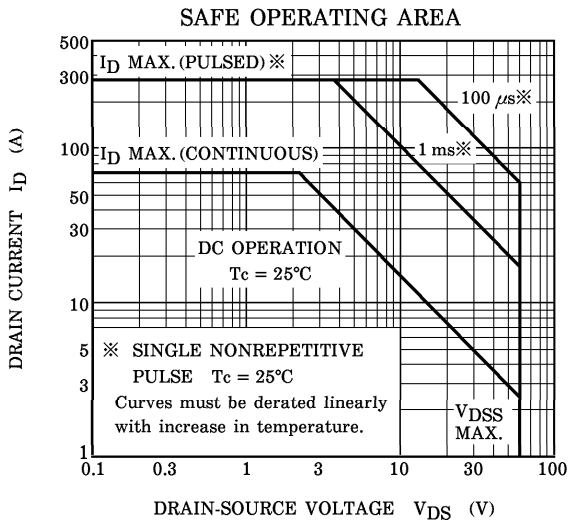
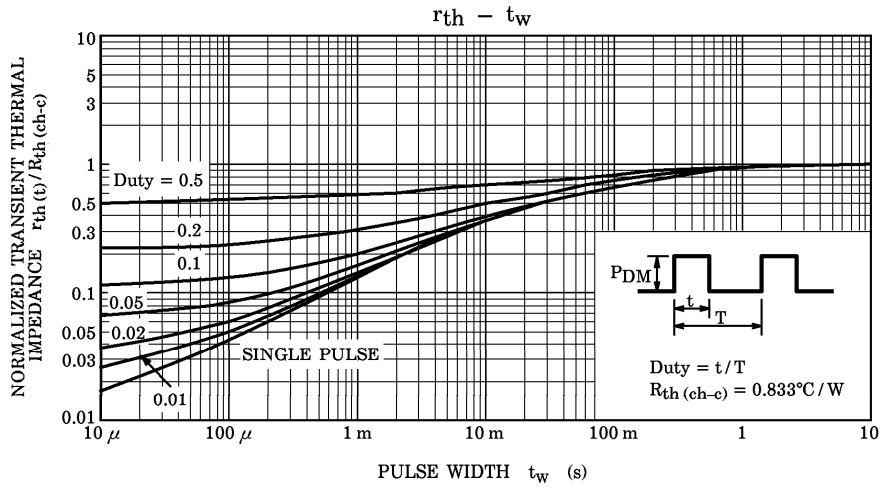
※ Lot Number

□ □ — Month (Starting from Alphabet A)

— Year (Last Number of the Christian Era)







Peak $I_{AR} = 70 \text{ A}$, $R_G = 25 \Omega$, $E_{AS} = \frac{1}{2} \cdot L \cdot I^2 \cdot \left(\frac{BV_{DSS}}{BV_{DSS} - V_{DD}} \right)$
 $V_{DD} = 25 \text{ V}$, $L = 136 \mu\text{H}$