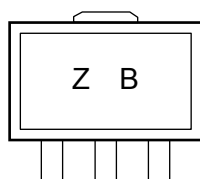


Marking



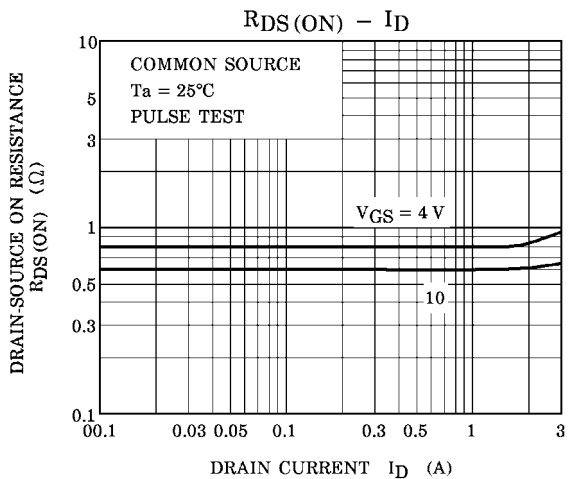
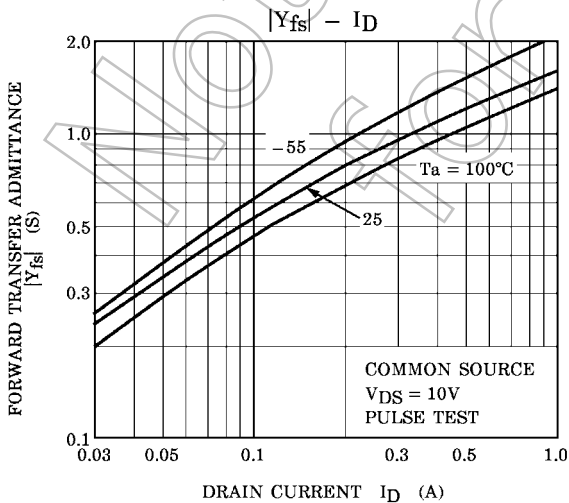
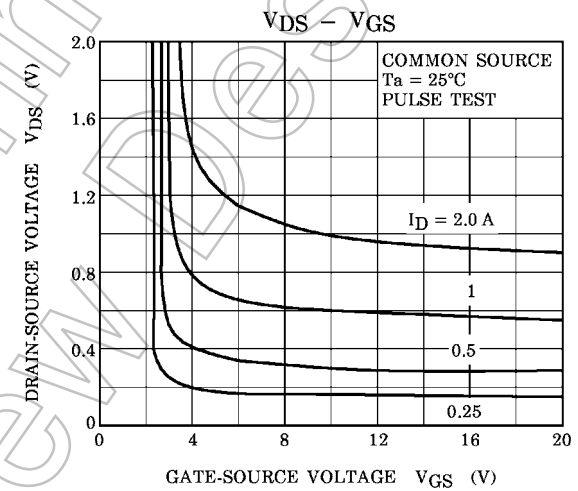
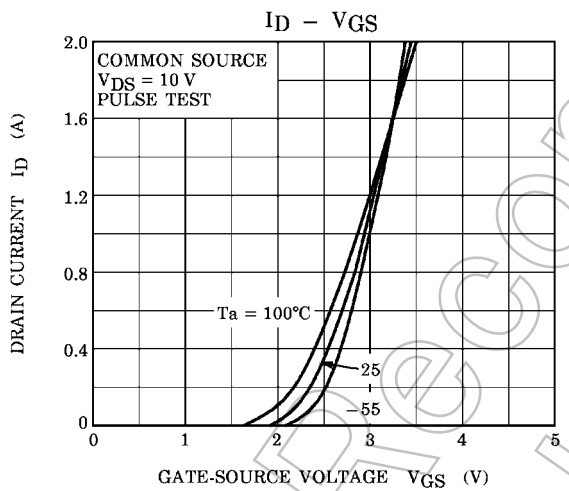
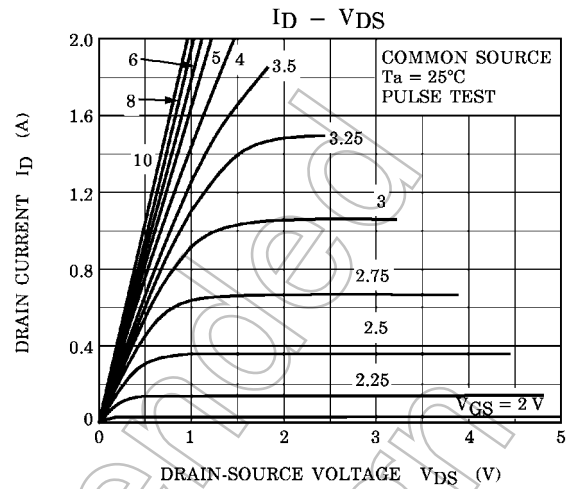
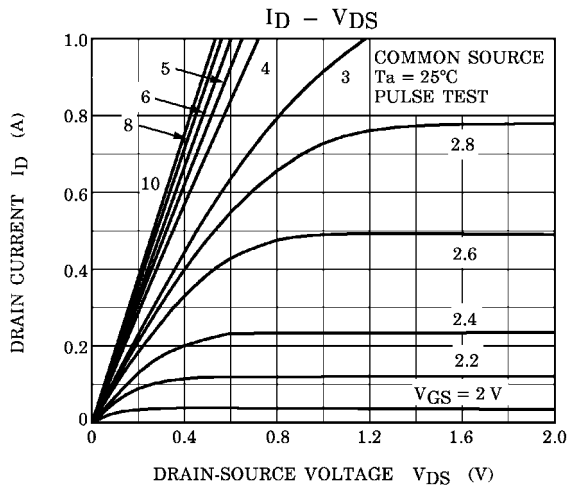
(The two digits represent the part number.)

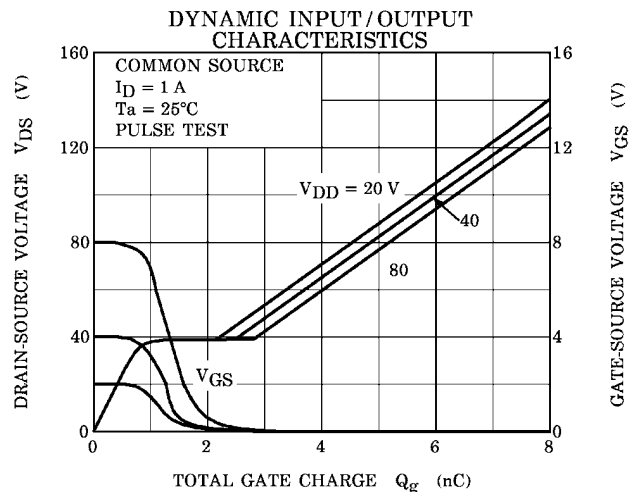
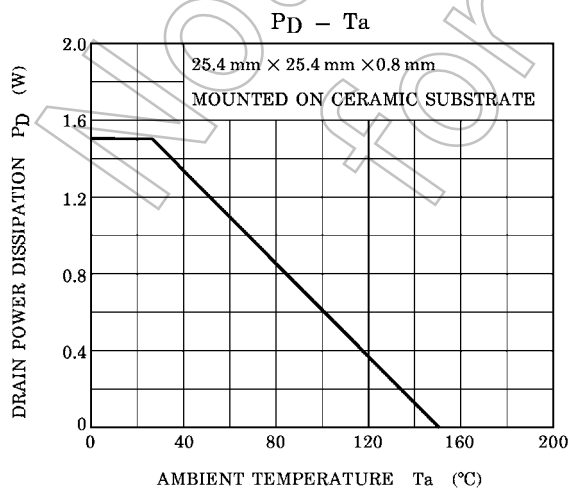
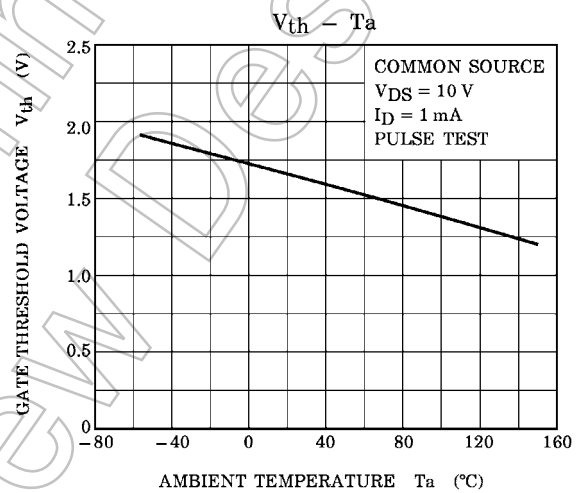
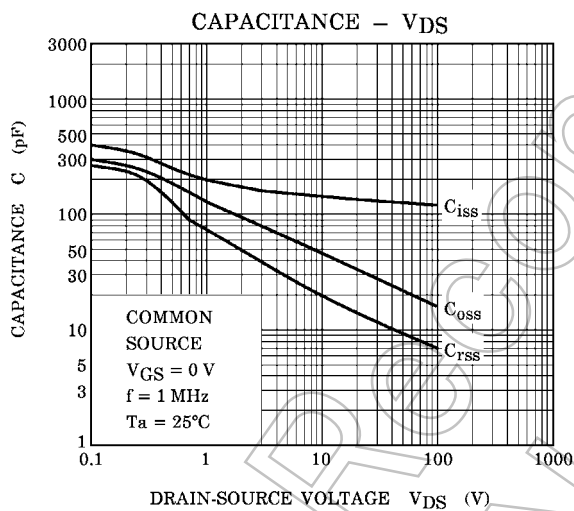
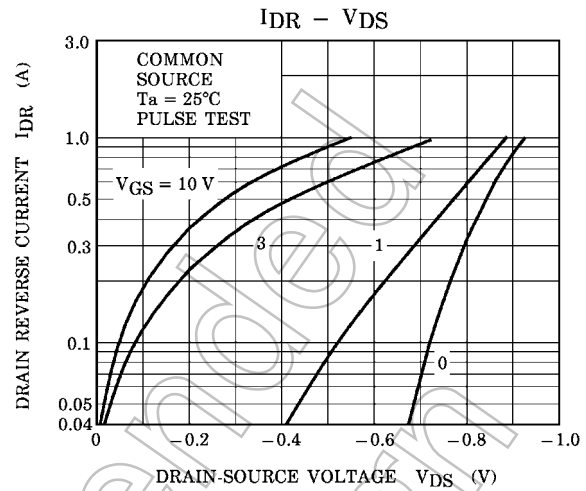
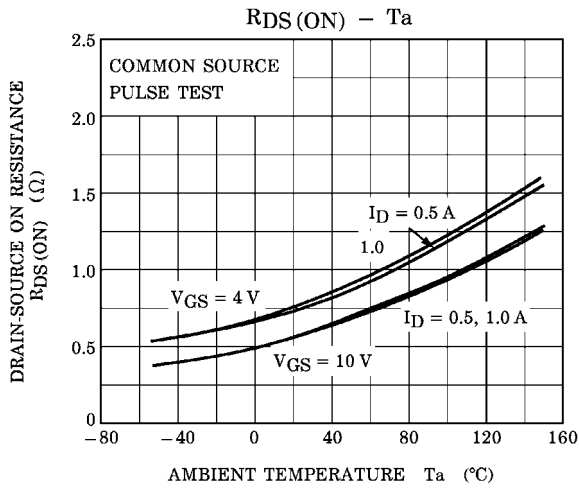
Electrical Characteristics (Ta = 25°C)

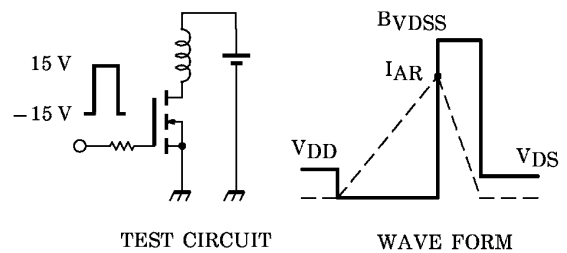
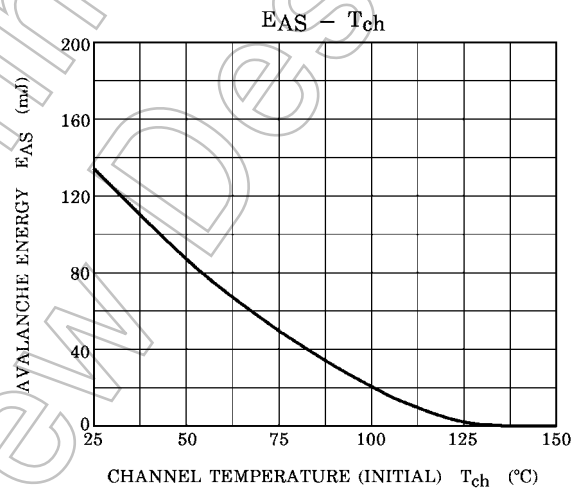
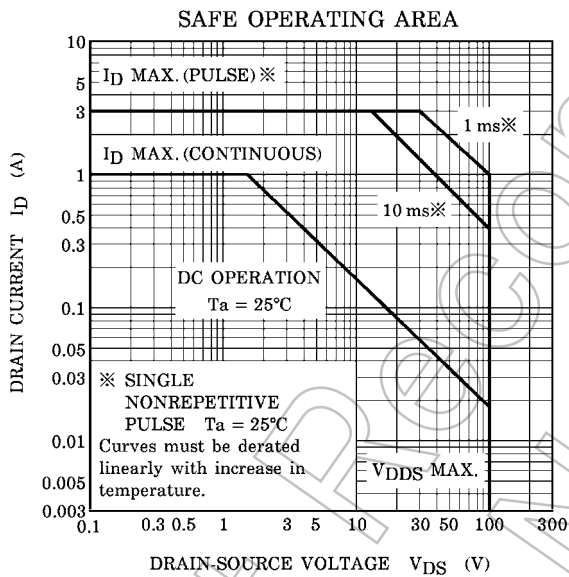
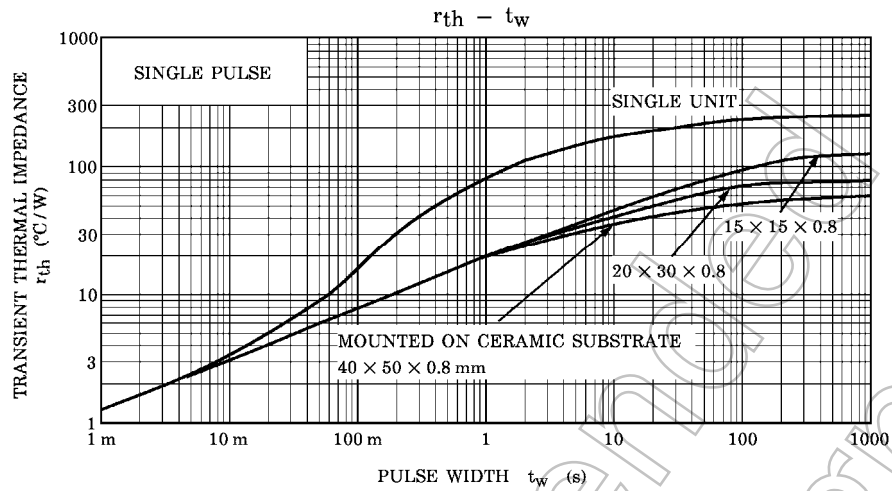
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current		I_{GSS}	$V_{GS} = \pm 16 \text{ V}, V_{DS} = 0 \text{ V}$	—	—	± 10	μA
Drain cut-off current		I_{DSS}	$V_{DS} = 100 \text{ V}, V_{GS} = 0 \text{ V}$	—	—	100	μA
Drain-source breakdown voltage		$V_{(BR)DSS}$	$I_D = 10 \text{ mA}, V_{GS} = 0 \text{ V}$	100	—	—	V
Gate threshold voltage		V_{th}	$V_{DS} = 10 \text{ V}, I_D = 1 \text{ mA}$	0.8	—	2.0	V
Drain-source ON resistance		$R_{DS(ON)}$	$V_{GS} = 4 \text{ V}, I_D = 0.5 \text{ A}$	—	0.65	0.95	Ω
			$V_{GS} = 10 \text{ V}, I_D = 0.5 \text{ A}$	—	0.5	0.7	
Forward transfer admittance		$ Y_{fs} $	$V_{DS} = 10 \text{ V}, I_D = 0.5 \text{ A}$	0.6	1.2	—	S
Input capacitance		C_{iss}	$V_{DS} = 10 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	—	140	—	pF
Reverse transfer capacitance		C_{rss}	$V_{DS} = 10 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	—	20	—	pF
Output capacitance		C_{oss}	$V_{DS} = 10 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	—	45	—	pF
Switching time	Rise time	t_r		—	8	—	ns
	Turn-on time	t_{on}		—	13	—	
	Fall time	t_f		—	45	—	
	Turn-off time	t_{off}		—	175	—	
Total gate charge (gate-source plus gate-drain)		Q_g	$V_{DD} \approx 80 \text{ V}, V_{GS} = 10 \text{ V}, I_D = 1 \text{ A}$	—	6.3	—	nC
Gate-source charge		Q_{gs}	$V_{DD} \approx 80 \text{ V}, V_{GS} = 10 \text{ V}, I_D = 1 \text{ A}$	—	4.3	—	nC
Gate-drain ("miller") charge		Q_{gd}	$V_{DD} \approx 80 \text{ V}, V_{GS} = 10 \text{ V}, I_D = 1 \text{ A}$	—	2	—	nC

Source-Drain Ratings and Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Continuous drain reverse current (Note 1)	I_{DR}	—	—	—	1	A
Pulse drain reverse current (Note 1)	I_{DRP}	—	—	—	3	A
Forward voltage (diode)	V_{DSF}	$I_{DR} = 1 \text{ A}, V_{GS} = 0 \text{ V}$	—	—	-1.5	V
Reverse recovery time	t_{rr}	$I_{DR} = 1 \text{ A}, V_{GS} = 0 \text{ V}, dI_{DR}/dt = 50 \text{ A}/\mu\text{s}$	—	80	—	ns
Reverse recovery charge	Q_{rr}	$I_{DR} = 1 \text{ A}, V_{GS} = 0 \text{ V}, dI_{DR}/dt = 50 \text{ A}/\mu\text{s}$	—	140	—	μC







$$R_G = 25 \, \Omega$$

$$V_{DD} = 25 \, \text{V}, L = 221 \, \text{mH} \quad E_{AS} = \frac{1}{2} \cdot L \cdot I^2 \cdot \left(\frac{B_{VDSS}}{B_{VDSS} - V_{DD}} \right)$$

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