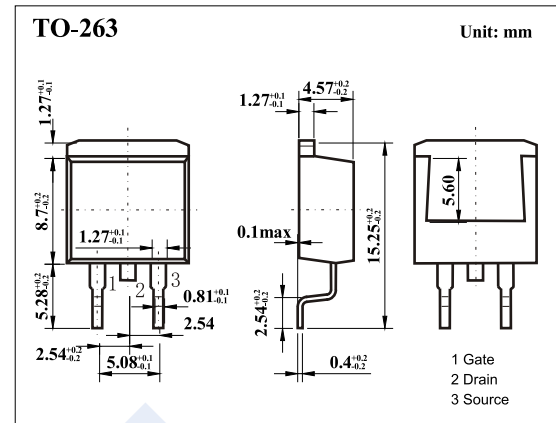
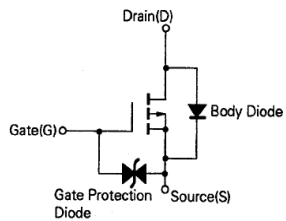


P-Channel MOSFET

2SJ302-ZJ

■ Features

- $V_{DS} (V) \approx -60V$
- $I_D \approx -16 A$
- $R_{DS(ON)} < 100m\Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 240m\Omega$ ($V_{GS} = -4V$)



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-60	V
Gate-Source Voltage	V_{GS}	-20,+10	
Continuous Drain Current	I_D	-16	A
Pulsed Drain Current (Note.1)	I_{DM}	-64	
Power Dissipation $T_c = 25^\circ C$	P_D	75	W
Junction Temperature	T_J	150	$^\circ C$
Junction Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10\mu s$, Duty Cycle $\leq 1\%$

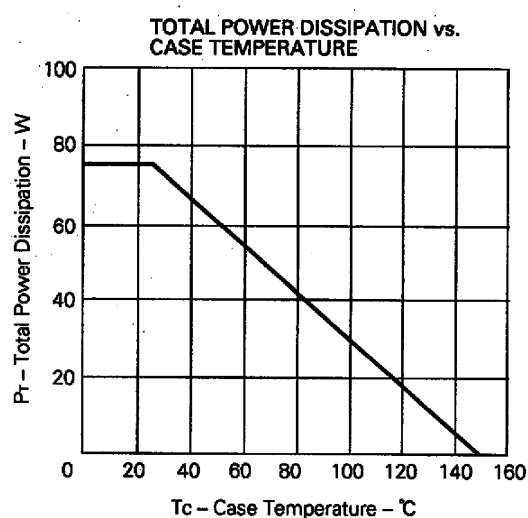
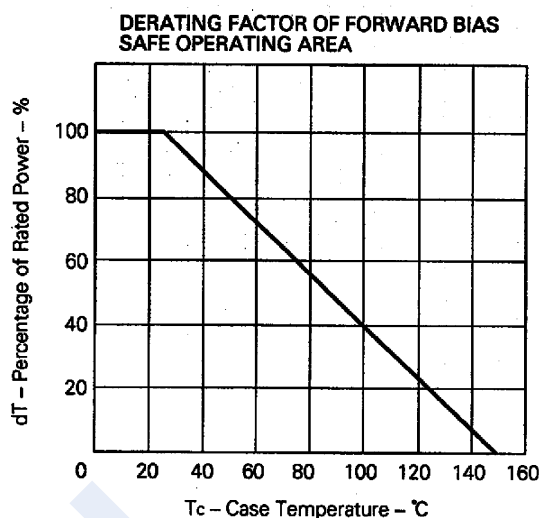
P-Channel MOSFET

2SJ302-ZJ

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D = -250 \mu A$, $V_{GS} = 0V$	-60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -60V$, $V_{GS} = 0V$			-10	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 16V$			± 10	μA
Gate Cut off Voltage	$V_{GS(off)}$	$V_{DS} = -10V$, $I_D = -1mA$	-1		-2	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$, $I_D = -8A$			100	m Ω
		$V_{GS} = -4V$, $I_D = -6A$			240	
Forward Transconductance	g_{FS}	$V_{DS} = -10V$, $I_D = -8A$	5			S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -10V$, $f = 1MHz$		1200		pF
Output Capacitance	C_{oss}			670		
Reverse Transfer Capacitance	C_{rss}			290		
Total Gate Charge	Q_g	$V_{GS} = -10V$, $V_{DS} = -48V$, $I_D = -16A$		42		nC
Gate Source Charge	Q_{gs}			3		
Gate Drain Charge	Q_{gd}			17		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS(on)} = -10V$, $V_{DS} = -30V$, $I_D = -8A$, $R_L = 3.75 \Omega$, $R_{GEN} = 10 \Omega$		30		ns
Turn-On Rise Time	t_r			170		
Turn-Off DelayTime	$t_{d(off)}$			150		
Turn-Off Fall Time	t_f			130		
Body Diode Reverse Recovery Time	t_{rr}	$I_F = -16A$, $V_{GS} = 0$, $dI/dt = 100A/\mu s$		110		nC
Body Diode Reverse Recovery Charge	Q_{rr}			220		
Diode Forward Voltage	V_{SD}	$I_F = -16A$, $V_{GS} = 0V$		-1		V

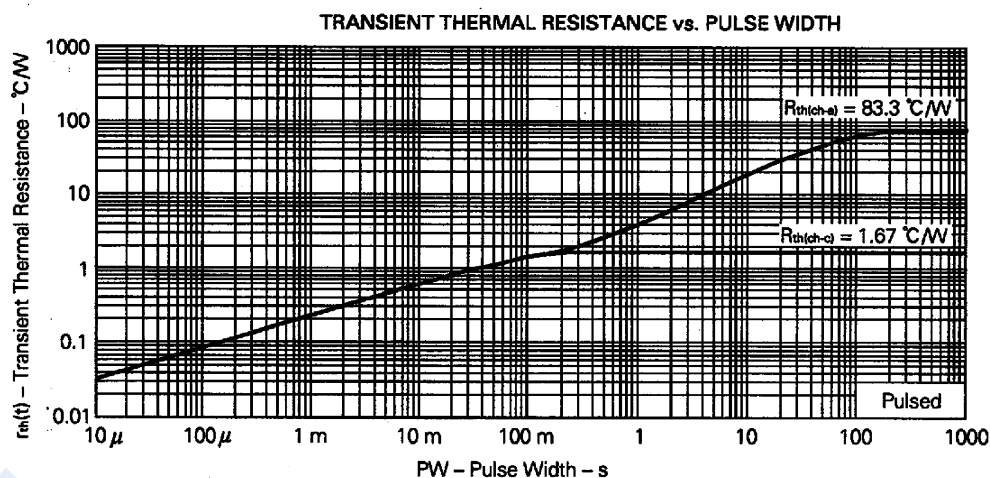
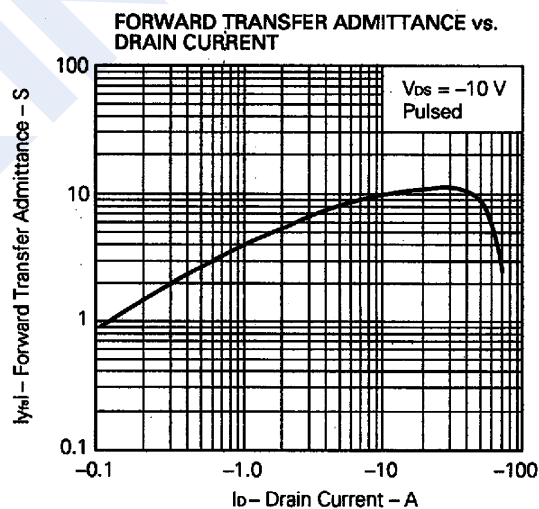
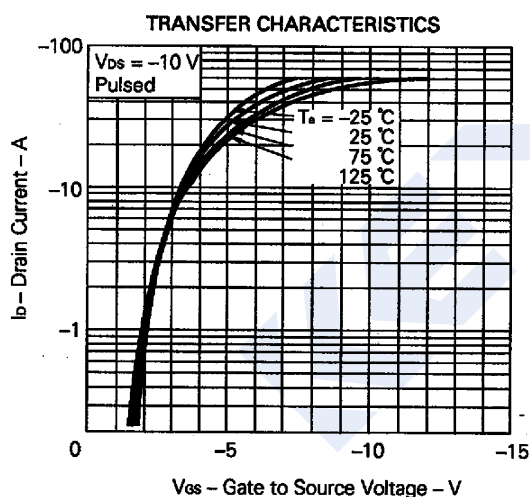
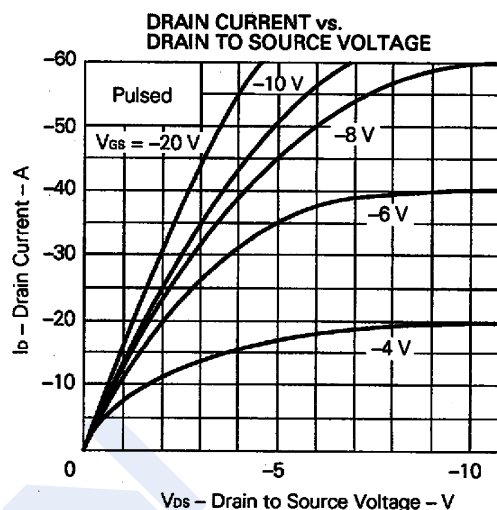
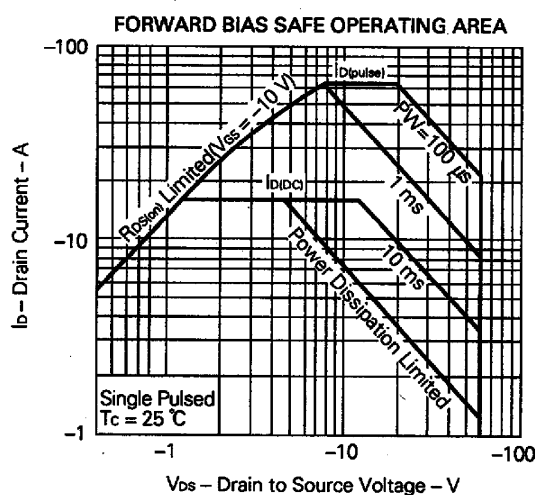
■ Typical Characteristics



P-Channel MOSFET

2SJ302-ZJ

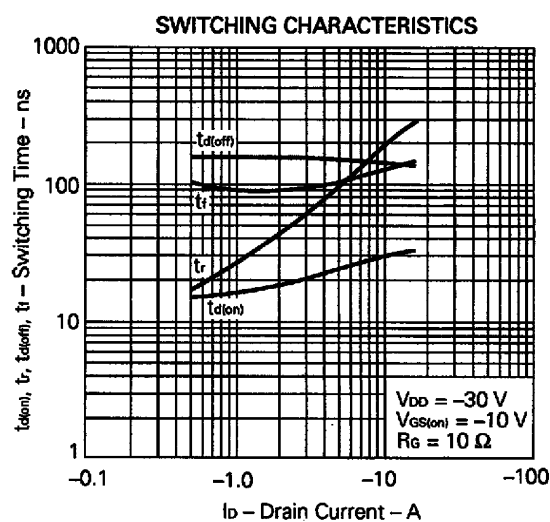
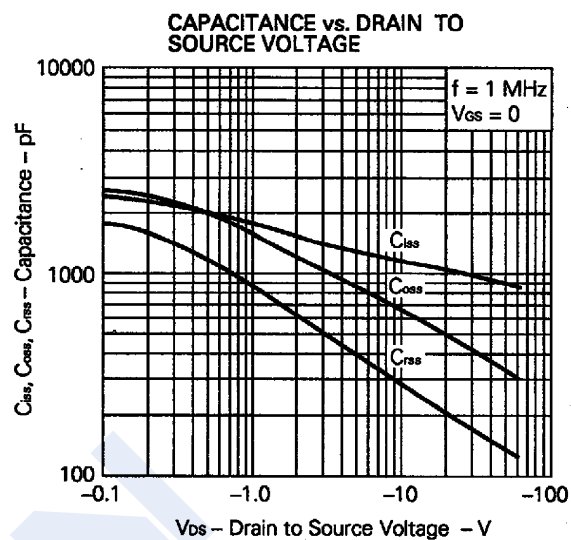
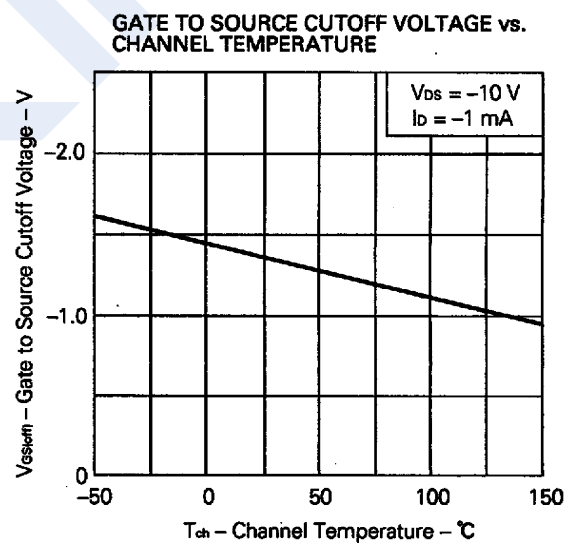
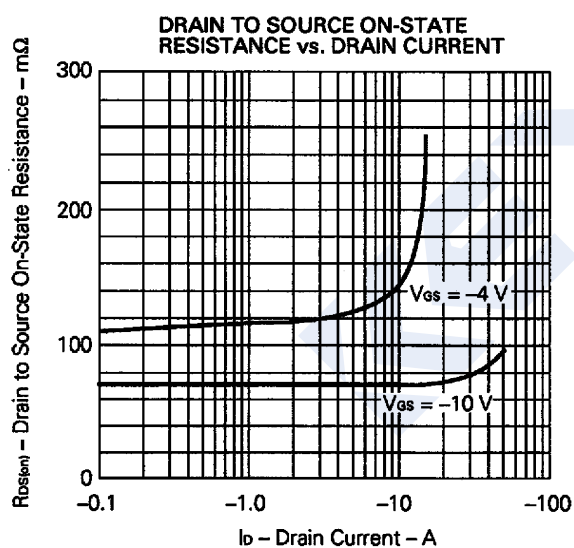
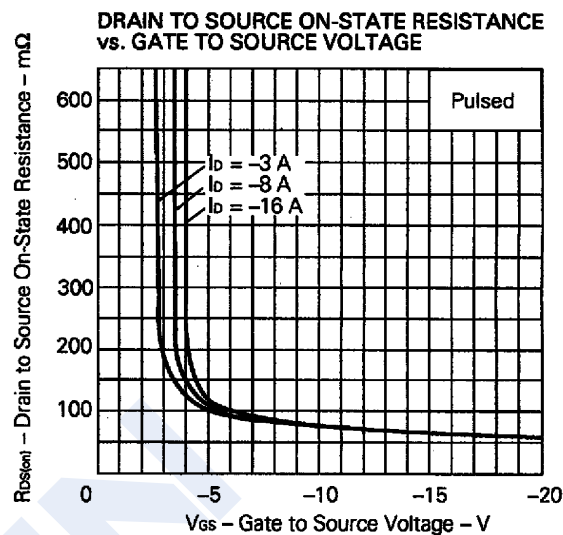
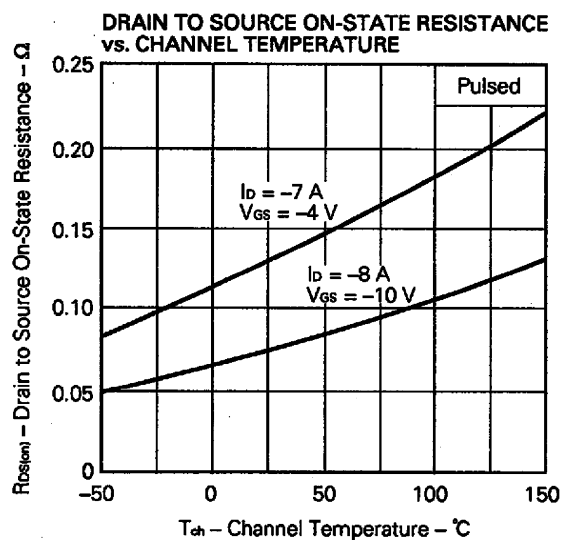
Typical Characteristics



P-Channel MOSFET

2SJ302-ZJ

Typical Characteristics

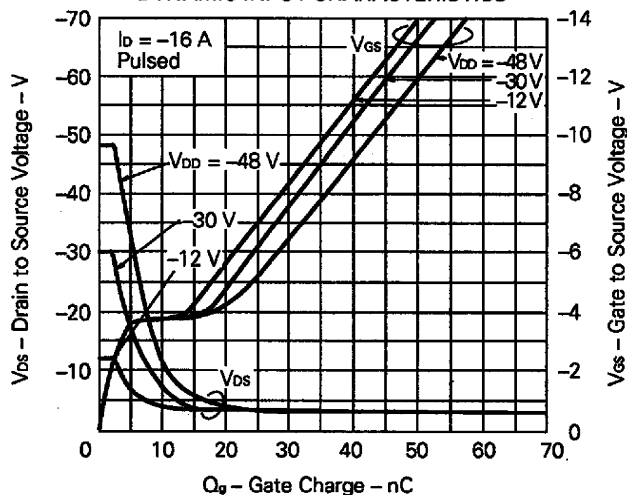


P-Channel MOSFET

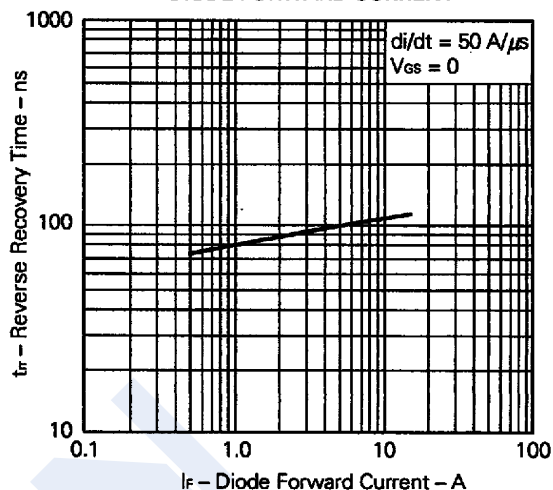
2SJ302-ZJ

■ Typical Characteristics

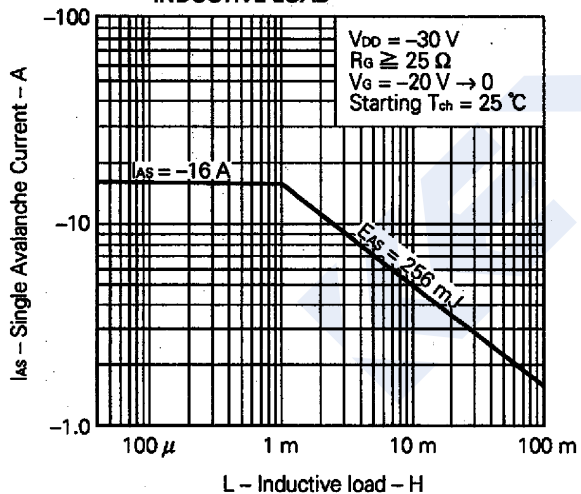
DYNAMIC INPUT CHARACTERISTICS



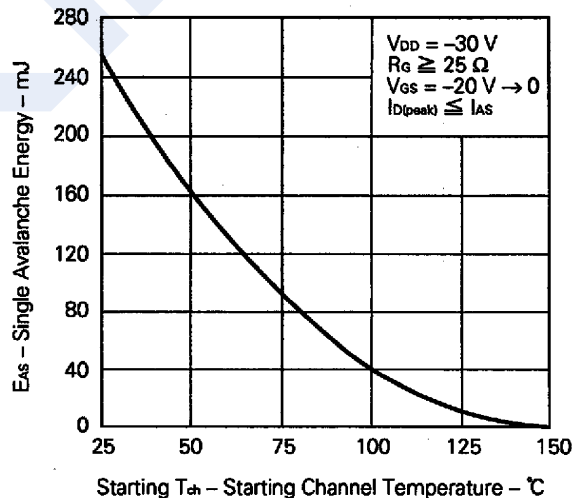
REVERSE RECOVERY TIME vs. DIODE FORWARD CURRENT



SINGLE AVALANCHE CURRENT vs. INDUCTIVE LOAD



SINGLE AVALANCHE ENERGY vs. STARTING CHANNEL TEMPERATURE



SOURCE TO DRAIN DIODE FORWARD VOLTAGE

