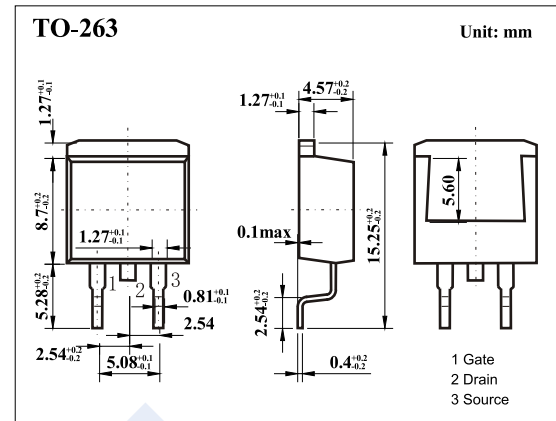
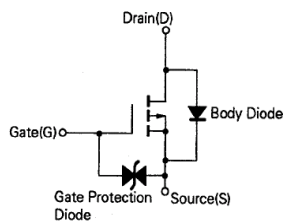


## P-Channel MOSFET

### 2SJ302-ZJ

#### ■ Features

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



#### ■ 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  $\leq 1\%$

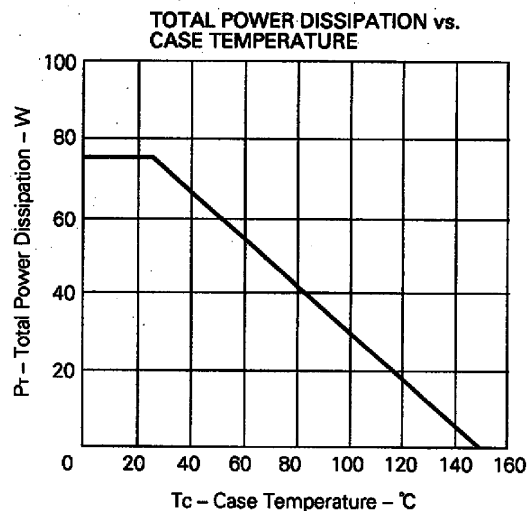
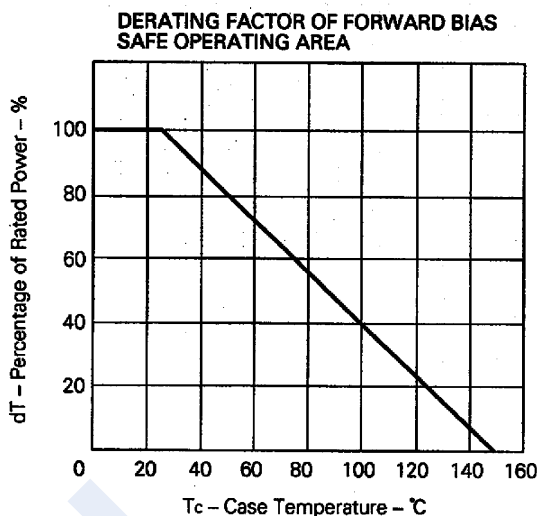
## P-Channel MOSFET

### 2SJ302-ZJ

#### ■ Electrical Characteristics Ta = 25°C

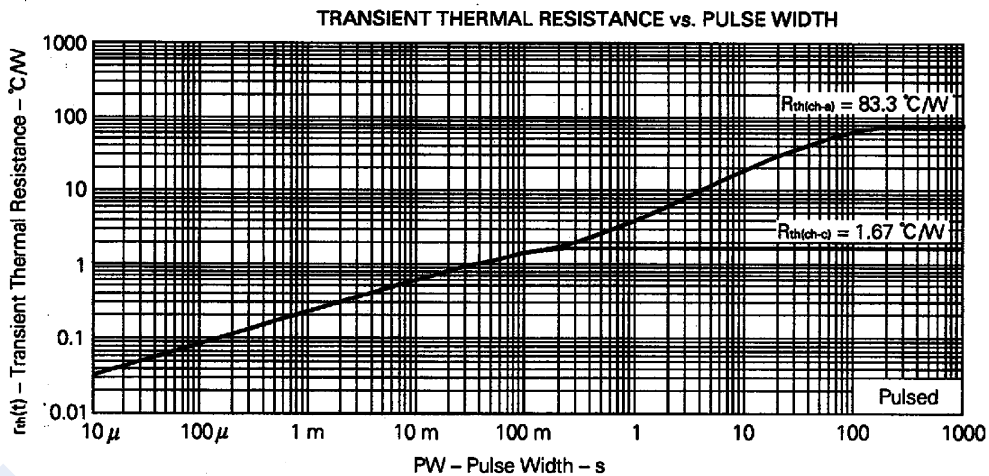
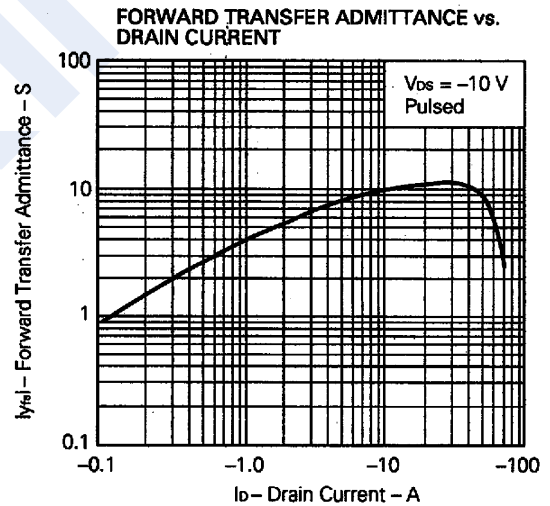
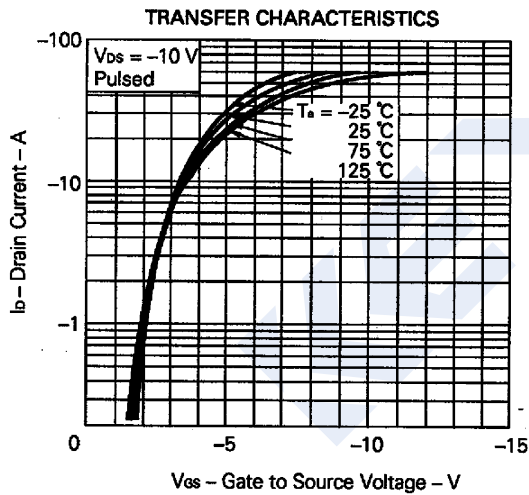
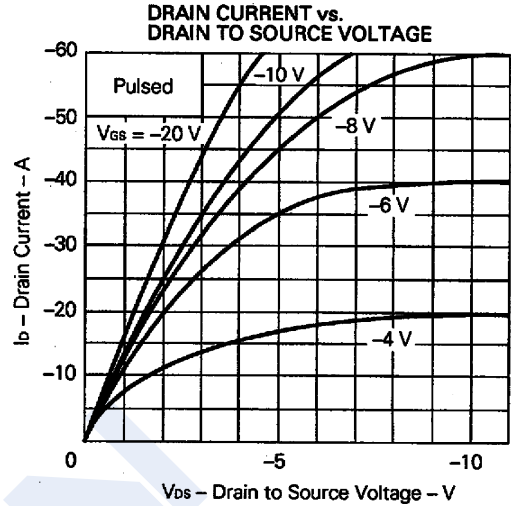
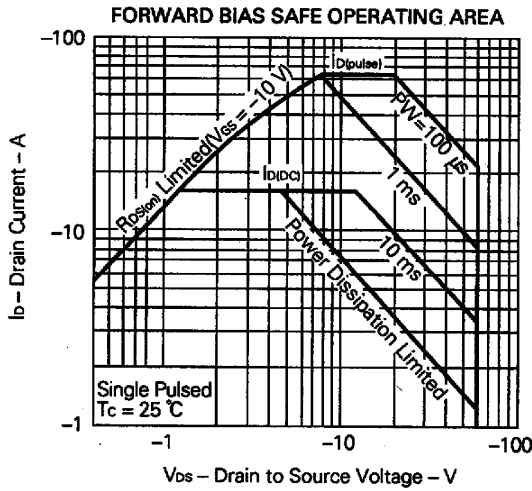
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DS}$	$I_D = -250 \mu A, V_{GS} = 0V$	-60			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -60V, V_{GS} = 0V$			-10	$\mu A$
Gate-Body leakage current	$I_{GSS}$	$V_{DS} = 0V, V_{GS} = \pm 16V$			$\pm 10$	$\mu A$
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 $\Omega$
		$V_{GS} = -4V, I_D = -6A$			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



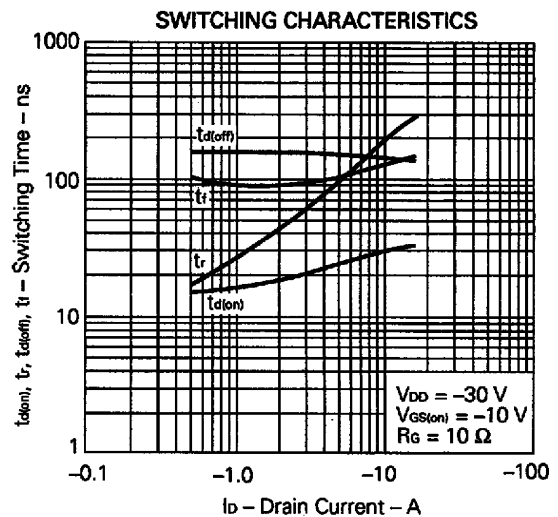
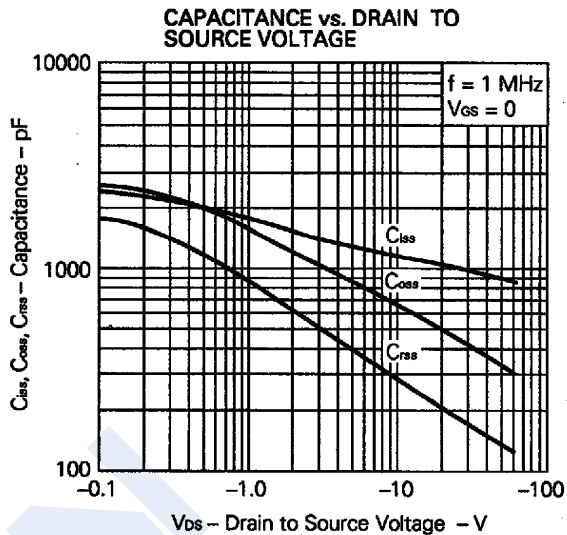
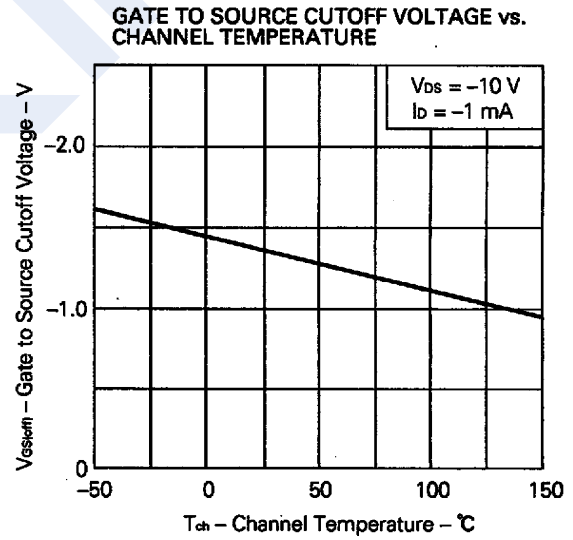
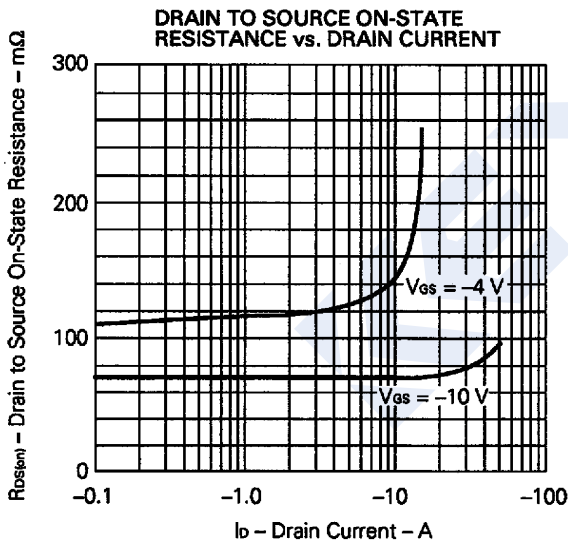
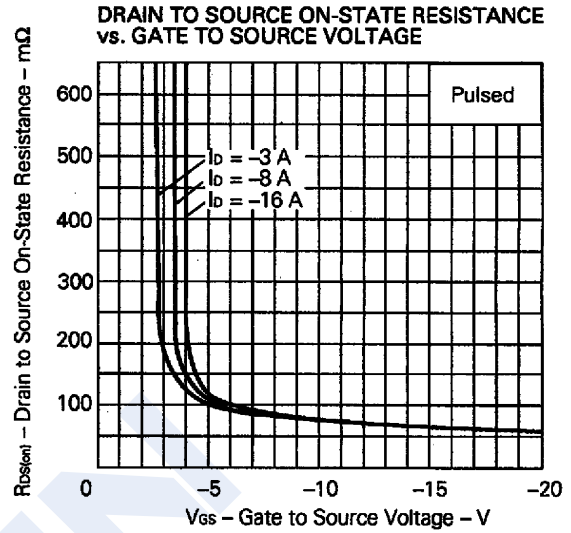
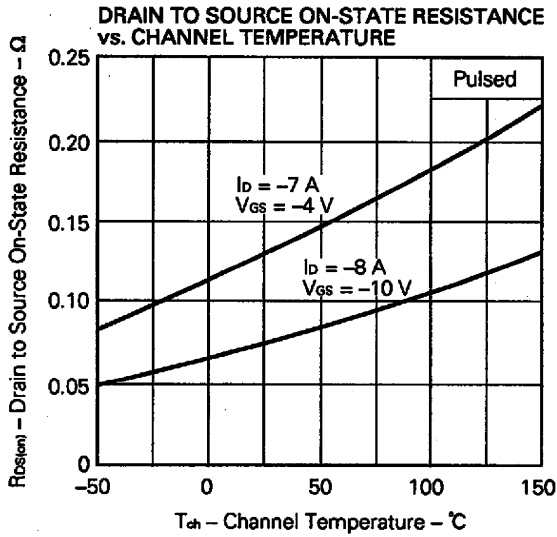
## P-Channel MOSFET 2SJ302-ZJ

■ Typical Characteristics



## P-Channel MOSFET 2SJ302-ZJ

■ Typical Characteristics



## P-Channel MOSFET 2SJ302-ZJ

■ Typical Characteristics

