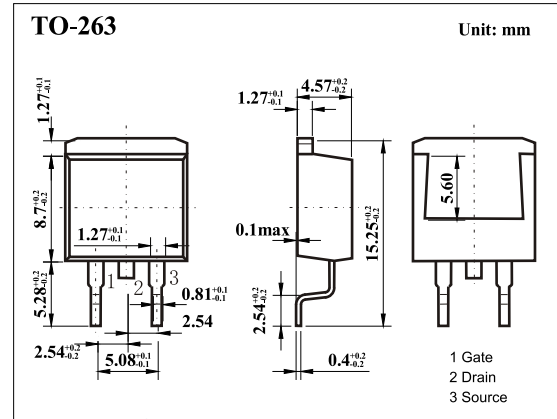
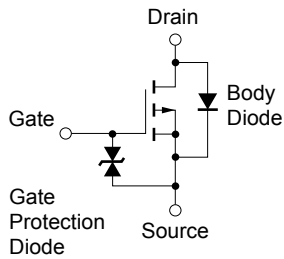


## P-Channel MOSFET

### 2SJ607-ZJ

#### ■ Features

- $V_{DS} (V) = -60V$
- $I_D = -83A$
- $R_{DS(ON)} < 11m\Omega$  ( $V_{GS} = -10V$ )
- $R_{DS(ON)} < 16m\Omega$  ( $V_{GS} = -4V$ )
- Low Ciss: Ciss = 7500 pF (TYP.)



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current	$I_D$	-83	A
Pulsed Drain Current (Note.1)	$I_{DM}$	-332	
Single Avalanche Current (Note.2)	$I_{AS}$	-50	
Power Dissipation	$P_D$	160	W
		1.5	
Single Avalanche Energy (Note.2)	$E_{AS}$	250	mJ
Junction Temperature	$T_J$	150	$^\circ C$
Junction Storage Temperature Range	$T_{stg}$	-55 to 150	

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

Note.2: Starting  $T_J = 25^\circ C, V_{DD} = -30V, R_G = 25\Omega, V_{GS} = -20V \rightarrow 0$

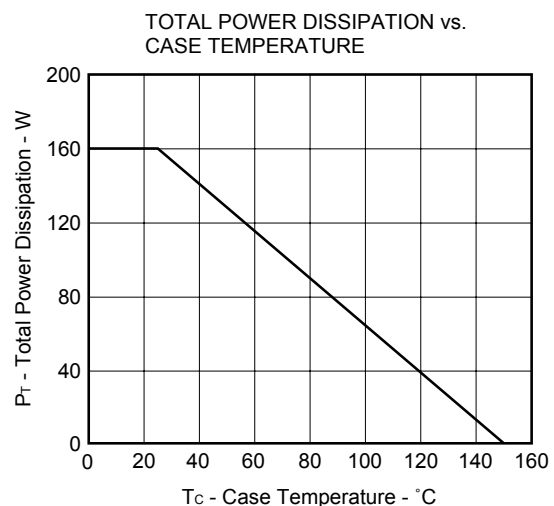
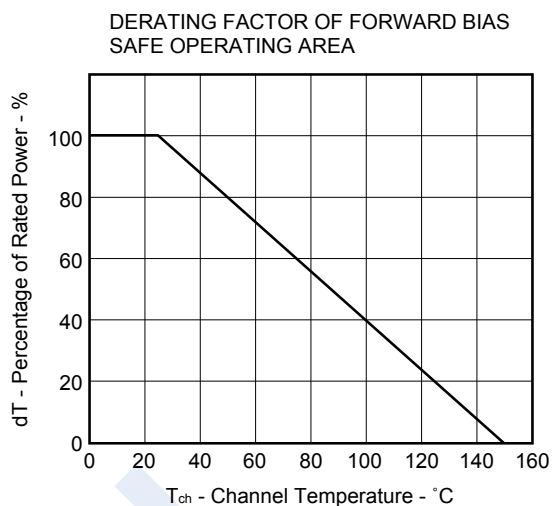
## P-Channel MOSFET

### 2SJ607-ZJ

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

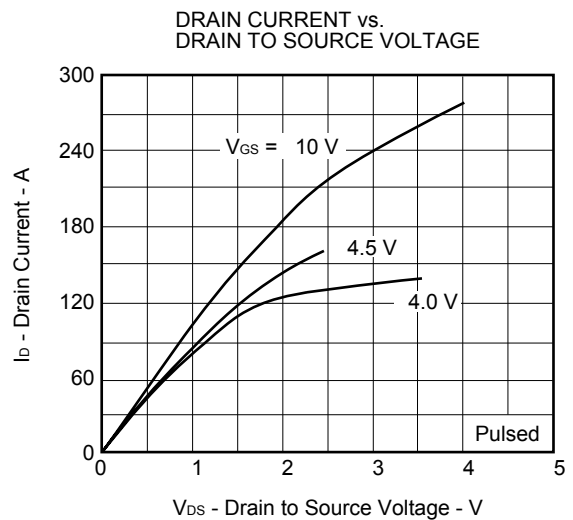
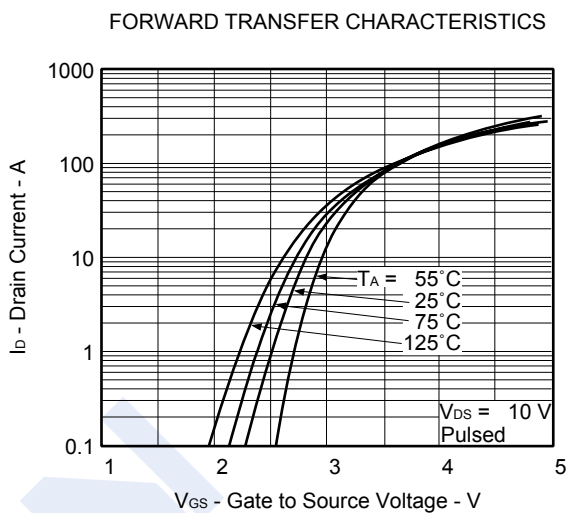
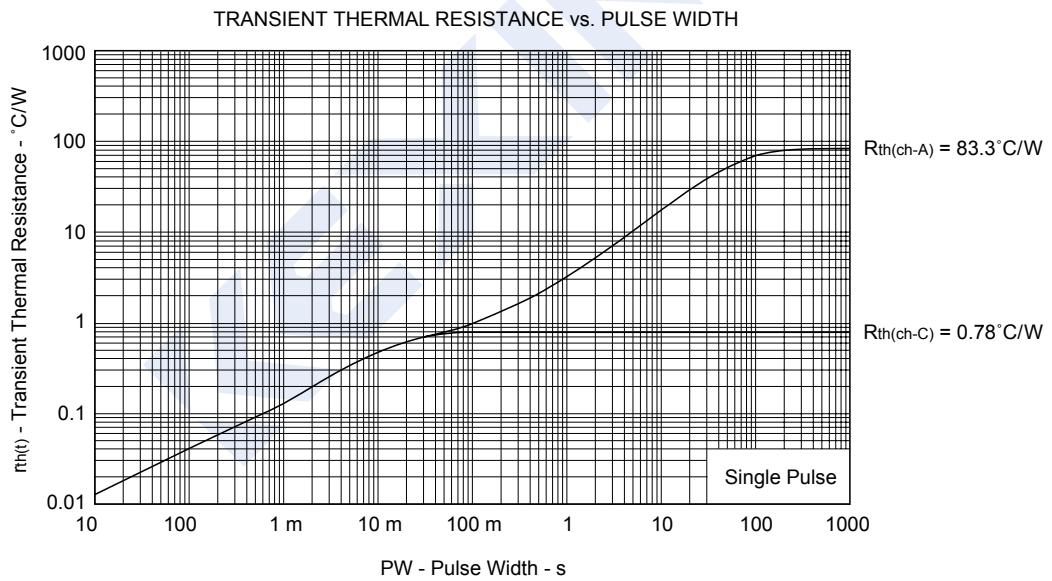
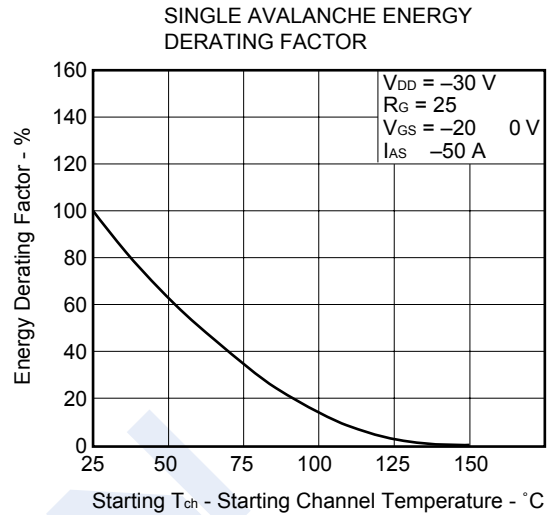
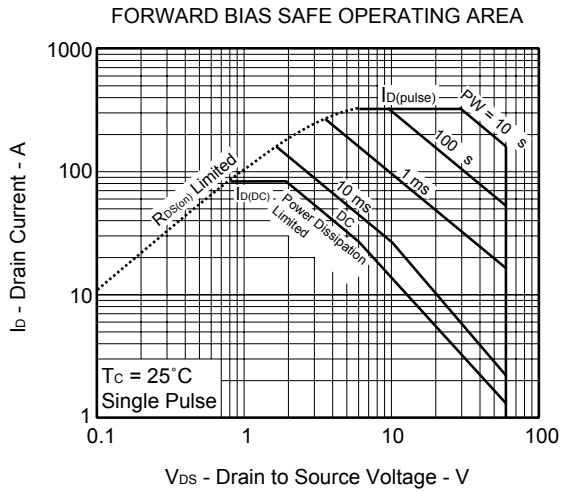
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	I <sub>D</sub> =-250 μA, V <sub>GS</sub> =0V	-60			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =-60V, V <sub>GS</sub> =0V			-10	μA
Gate-Body leakage current	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±20V			±10	μA
Gate Cut off Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =-10V, I <sub>D</sub> =-1mA	-1.5		-2.5	V
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =-10V, I <sub>D</sub> =-42A			11	mΩ
		V <sub>GS</sub> =-4V, I <sub>D</sub> =-42A			16	
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =-10V, I <sub>D</sub> =-42A	45	90		S
Input Capacitance	C <sub>iss</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =-10V, f=1MHz		7500		pF
Output Capacitance	C <sub>oss</sub>			1800		
Reverse Transfer Capacitance	C <sub>rss</sub>			430		
Total Gate Charge	Q <sub>g</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-48V, I <sub>D</sub> =-83A		188		nC
Gate Source Charge	Q <sub>gs</sub>			30		
Gate Drain Charge	Q <sub>gd</sub>			48		
Turn-On DelayTime	t <sub>d(on)</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-30V, I <sub>D</sub> =-42A, R <sub>G</sub> =0 Ω		23		ns
Turn-On Rise Time	t <sub>r</sub>			16		
Turn-Off DelayTime	t <sub>d(off)</sub>			340		
Turn-Off Fall Time	t <sub>f</sub>			160		
Body Diode Reverse Recovery Time	t <sub>rr</sub>			64		
Body Diode Reverse Recovery Charge	Q <sub>rr</sub>	I <sub>F</sub> =-83A, V <sub>GS</sub> =0, di/dt=100A/μs		150		nC
Diode Forward Voltage	V <sub>SD</sub>	I <sub>F</sub> =-83A, V <sub>GS</sub> =0V		-1		V

#### ■ Typical Characteristics



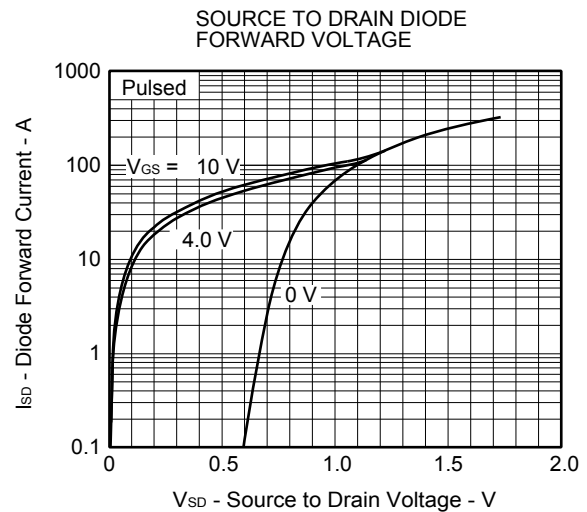
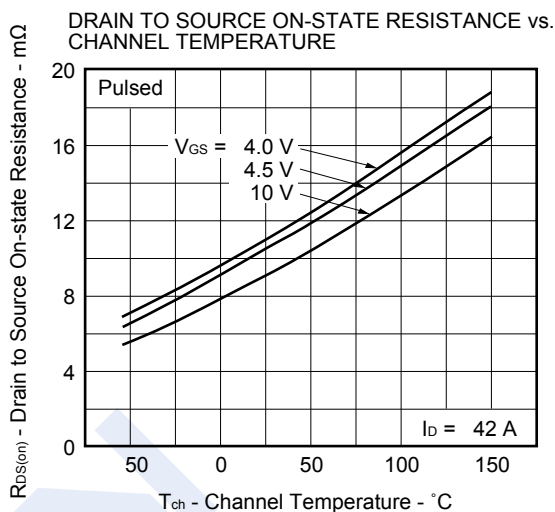
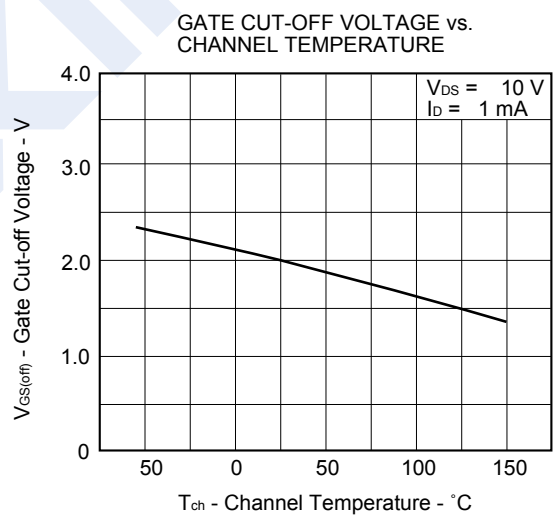
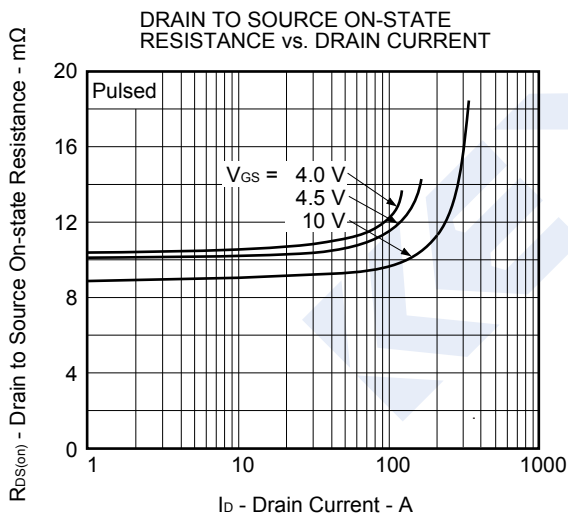
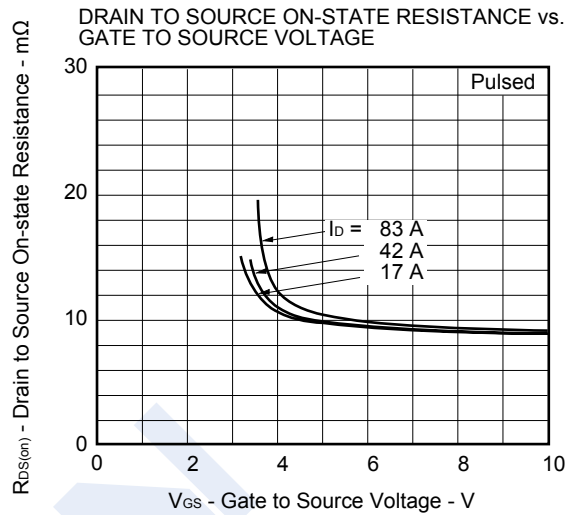
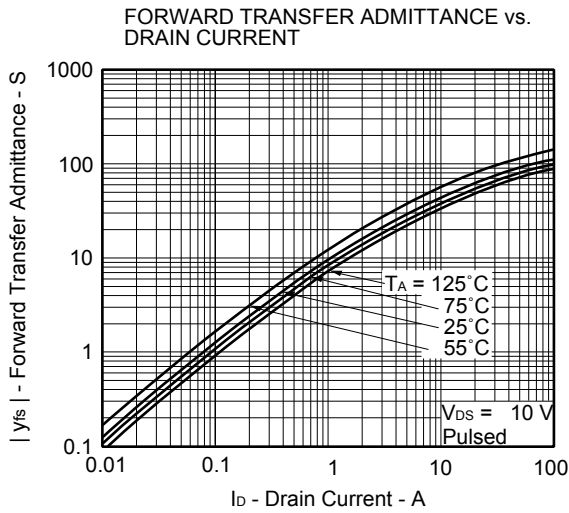
## P-Channel MOSFET 2SJ607-ZJ

■ Typical Characteristics



## P-Channel MOSFET 2SJ607-ZJ

■ Typical Characteristics



## P-Channel MOSFET 2SJ607-ZJ

■ Typical Characteristics

