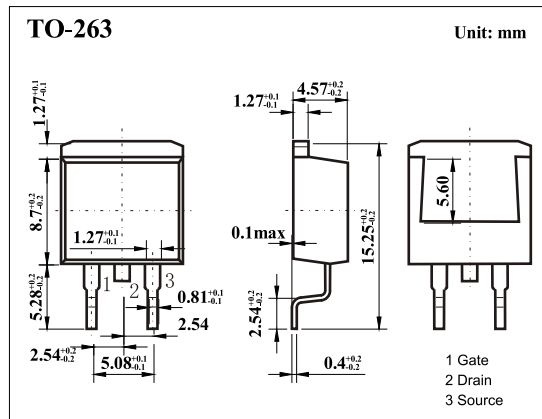
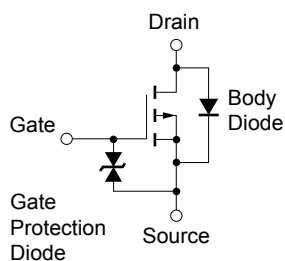


P-Channel MOSFET

2SJ605-ZJ

Features

- $V_{DS} (V) = -60V$
- $I_D = -65A$
- $R_{DS(ON)} < 20m\Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 31m\Omega$ ($V_{GS} = -4V$)
- Low Ciss: Ciss = 4600 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}	± 20	
Continuous Drain Current	I_D	-65	A
Pulsed Drain Current (Note.1)	I_{DM}	-200	
Single Avalanche Current (Note.2)	I_{AS}	-45	
Power Dissipation	P_D	100	W
		1.5	
Single Avalanche Energy (Note.2)	EAS	203	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 $T_J = 25^\circ C$, $V_{DD} = -30V$, $R_G = 25\Omega$, $V_{GS} = -20V \rightarrow 0$

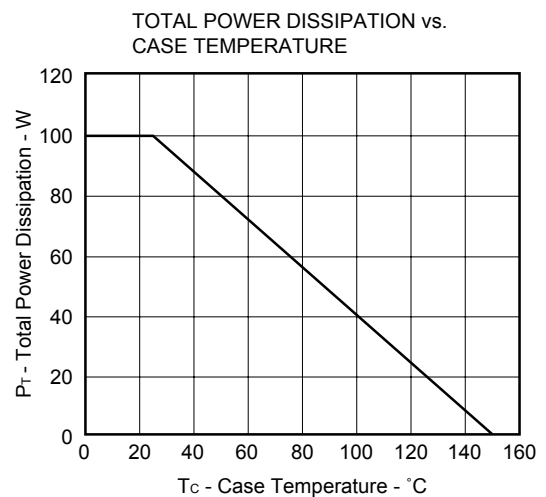
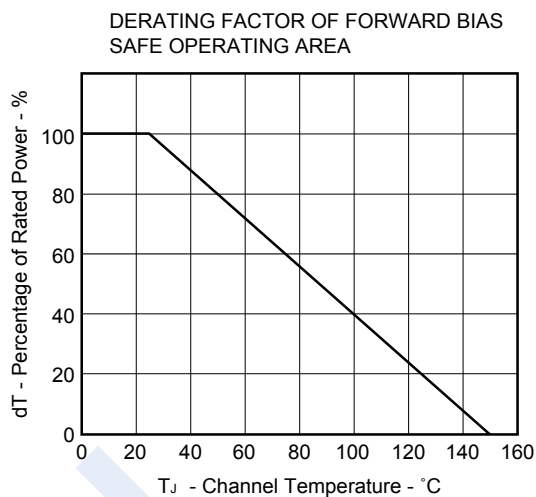
P-Channel MOSFET

2SJ605-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}	$V_{DS} = 0V$, $V_{GS} = \pm 20V$			± 10	μA
Gate Cut off Voltage	$V_{GS(off)}$	$V_{DS} = -10V$, $I_D = -1mA$	-1.5		-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$, $I_D = -33A$			20	$m\Omega$
		$V_{GS} = -4V$, $I_D = -33A$			31	
Forward Transconductance	g_{FS}	$V_{DS} = -10V$, $I_D = -33A$	30	59		S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -10V$, $f = 1MHz$		4600		pF
Output Capacitance	C_{oss}			820		
Reverse Transfer Capacitance	C_{rss}			330		
Total Gate Charge	Q_g	$V_{GS} = -10V$, $V_{DS} = -48V$, $I_D = -65A$		87		nC
Gate Source Charge	Q_{gs}			15		
Gate Drain Charge	Q_{gd}			22		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS} = -10V$, $V_{DS} = -30V$, $I_D = -33A$, $R_G = 0 \Omega$		15		ns
Turn-On Rise Time	t_r			14		
Turn-Off DelayTime	$t_{d(off)}$			100		
Turn-Off Fall Time	t_f			58		
Body Diode Reverse Recovery Time	t_{rr}	$I_F = -65A$, $V_{GS} = 0$, $dI/dt = 100A/\mu s$		53		ns
Body Diode Reverse Recovery Charge	Q_{rr}			110		
Diode Forward Voltage	V_{SD}	$I_F = -65A$, $V_{GS} = 0V$		-1		V

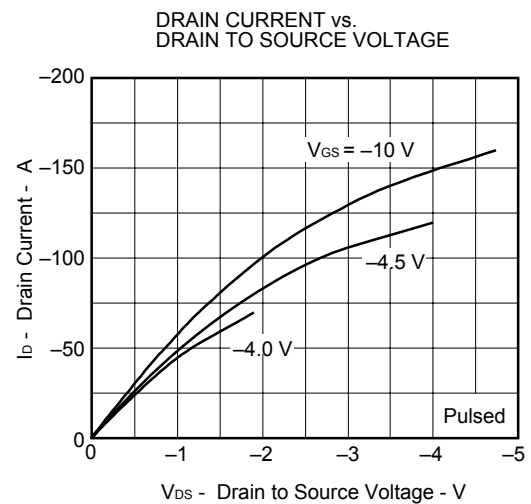
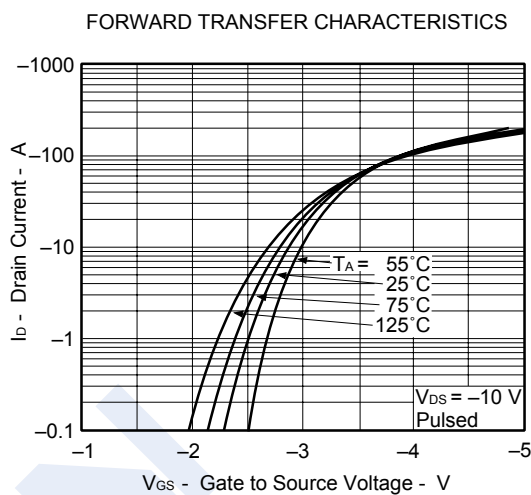
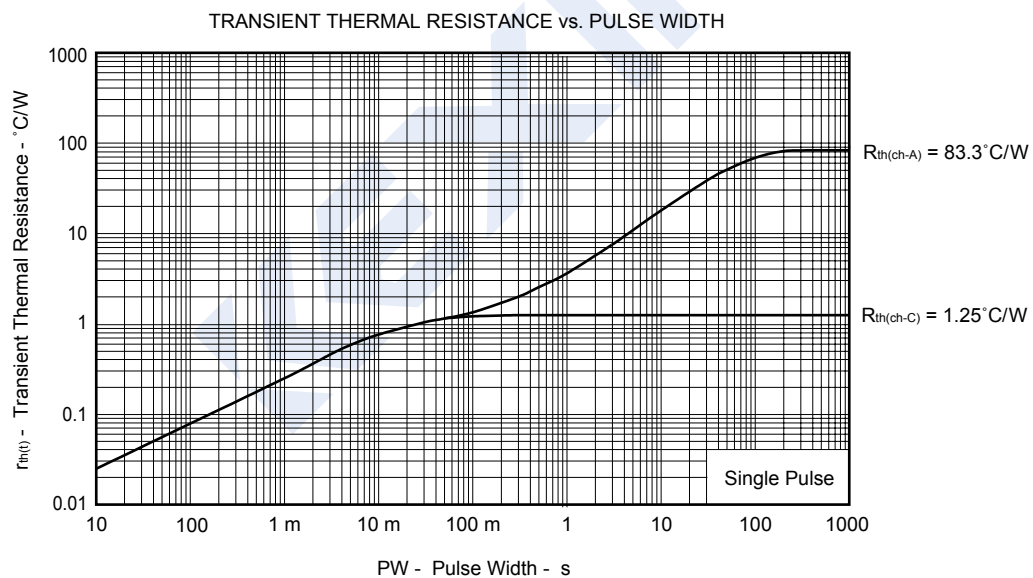
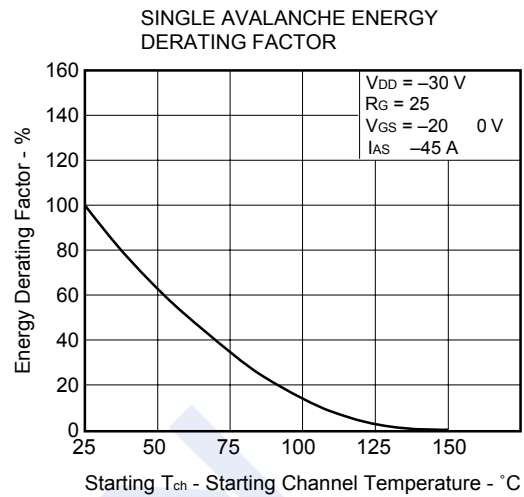
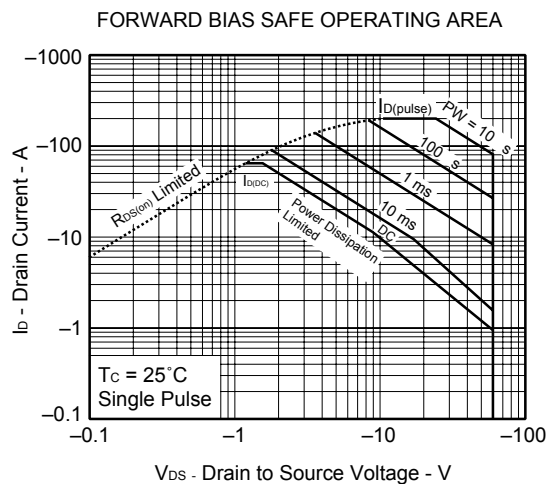
■ Typical Characteristics



P-Channel MOSFET

2SJ605-ZJ

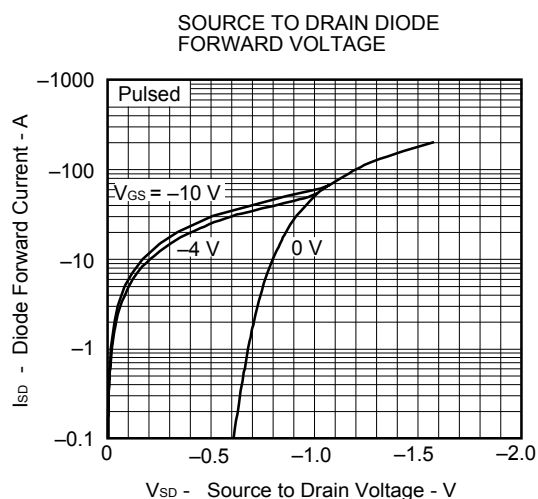
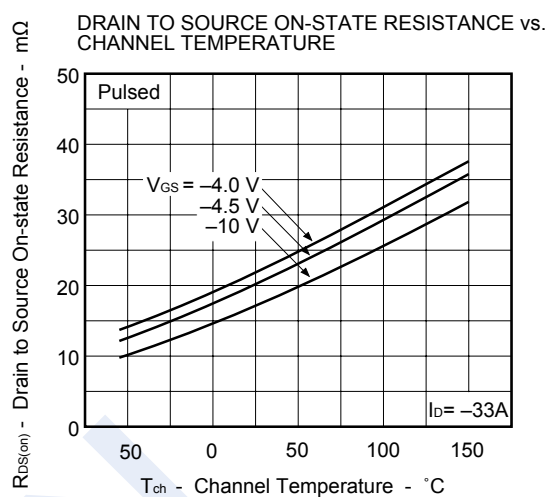
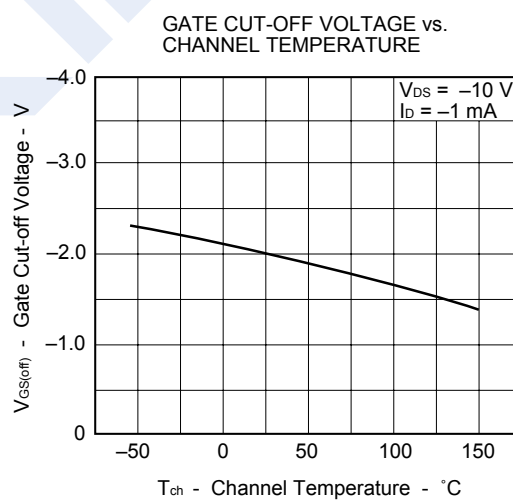
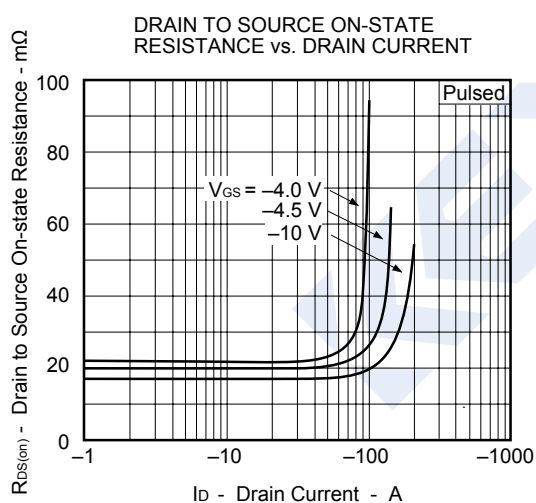
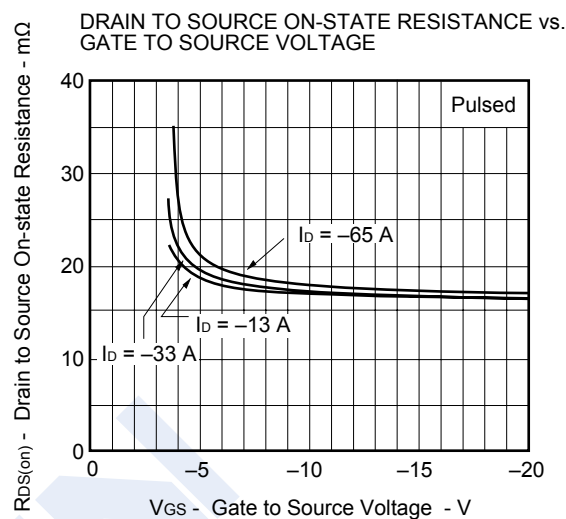
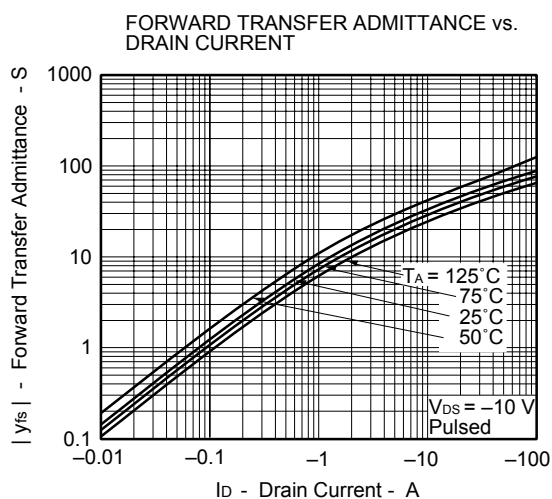
Typical Characteristics



P-Channel MOSFET

2SJ605-ZJ

Typical Characteristics



P-Channel MOSFET

2SJ605-ZJ

■ Typical Characteristics

