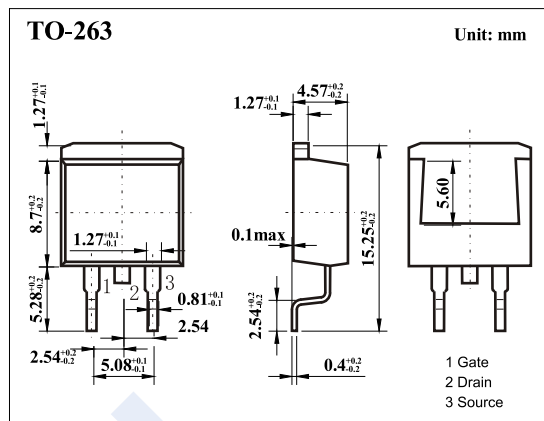
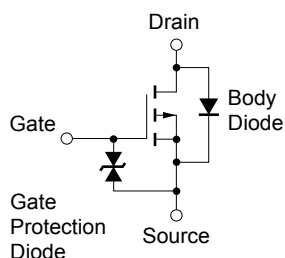


P-Channel MOSFET

2SJ492-ZJ

■ Features

- $V_{DS}(V) \approx -60V$
- $I_D \approx -20\text{ A}$
- $R_{DS(ON)} < 100\text{ m}\Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 185\text{ m}\Omega$ ($V_{GS} = -4V$)
- Low C_{iss} : $C_{iss} = 1210\text{ pF}$ (TYP.)



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-60	V
Gate-Source Voltage (Note.1)	$V_{GS(AC)}$	± 20	
	$V_{GS(DC)}$	-20,0	
Continuous Drain Current	I_D	-20	A
Pulsed Drain Current (Note.2)	I_{DM}	-80	
Single Avalanche Current (Note.3)	I_{AS}	-20	
Power Dissipation $T_c = 25^\circ\text{C}$ $T_a = 25^\circ\text{C}$	P_D	70	W
		1.5	
Single Avalanche Energy (Note.3)	E_{AS}	40	mJ
Thermal Resistance.Junction- to-Ambient	R_{thJA}	83.3	$^\circ\text{C}/\text{W}$
Thermal Resistance.Junction- to-Case	R_{thJC}	1.79	
Junction Temperature	T_J	150	$^\circ\text{C}$
Junction Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $f = 20\text{ kHz}$, Duty Cycle $\leq 10\%$ (+Side)

Note.2: $PW \leq 10\text{ }\mu\text{s}$, Duty Cycle $\leq 1\%$

Note.3: Starting $T_J = 25^\circ\text{C}$, $R_A = 25^\circ\text{C}$, $V_{GS} = -20\text{ V} \rightarrow 0$

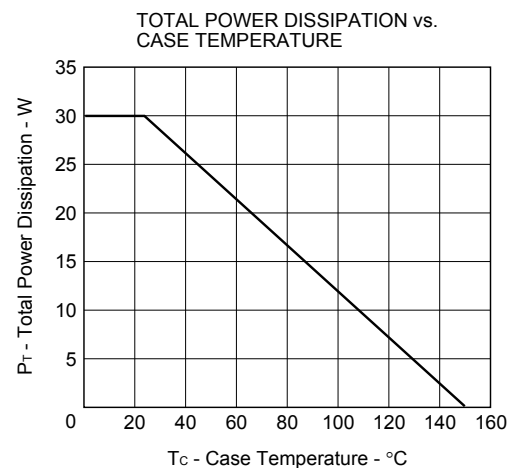
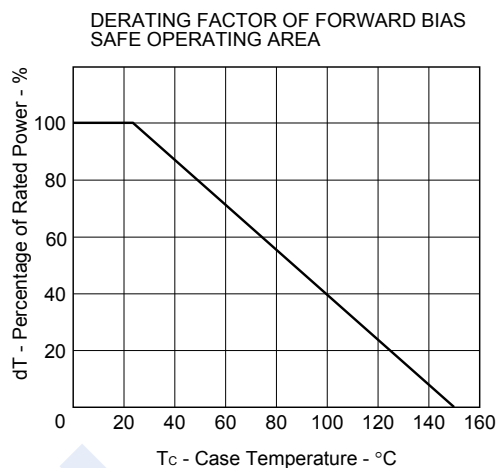
P-Channel MOSFET

2SJ492-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		-2	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$, $I_D = -10A$			100	m Ω
		$V_{GS} = -4V$, $I_D = -10A$			185	
Forward Transconductance	g_{FS}	$V_{DS} = -10V$, $I_D = -10A$	5	12		S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -10V$, $f = 1MHz$		1210		pF
Output Capacitance	C_{oss}			520		
Reverse Transfer Capacitance	C_{rss}			180		
Total Gate Charge	Q_g	$V_{GS} = -10V$, $V_{DS} = -48V$, $I_D = -20A$		42		nC
Gate Source Charge	Q_{gs}			8		
Gate Drain Charge	Q_{gd}			10		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS(on)} = -10V$, $V_{DS} = -30V$, $I_D = -10A$, $R_G = 10 \Omega$		16		ns
Turn-On Rise Time	t_r			140		
Turn-Off DelayTime	$t_{d(off)}$			90		
Turn-Off Fall Time	t_f			80		
Body Diode Reverse Recovery Time	t_{rr}	$I_F = -20A$, $V_{GS} = 0$, $dI/dt = 50A/\mu s$		125		nC
Body Diode Reverse Recovery Charge	Q_{rr}			280		
Diode Forward Voltage	V_{SD}	$I_F = -20A$, $V_{GS} = 0V$		-1		V

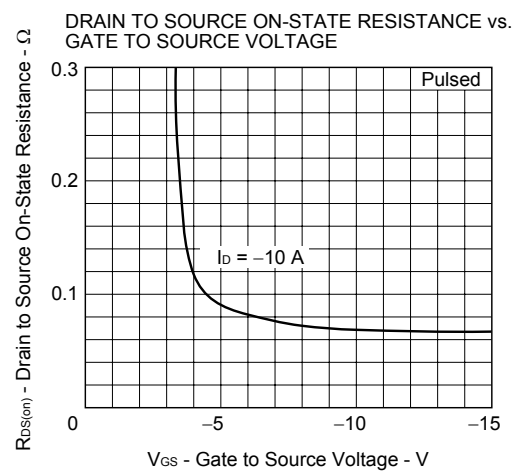
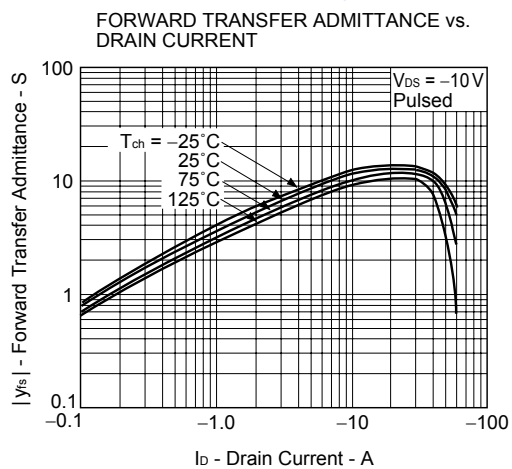
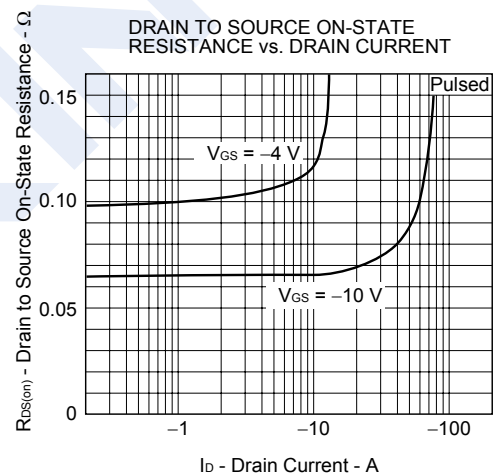
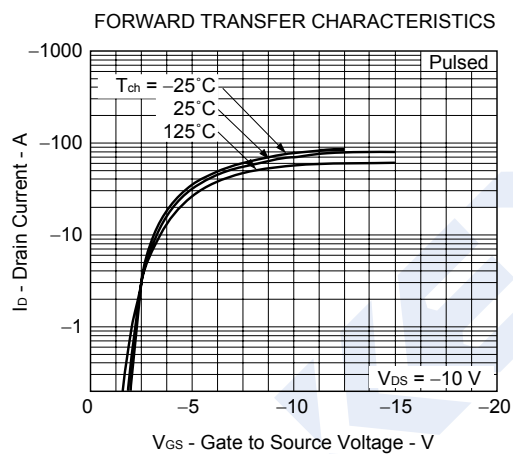
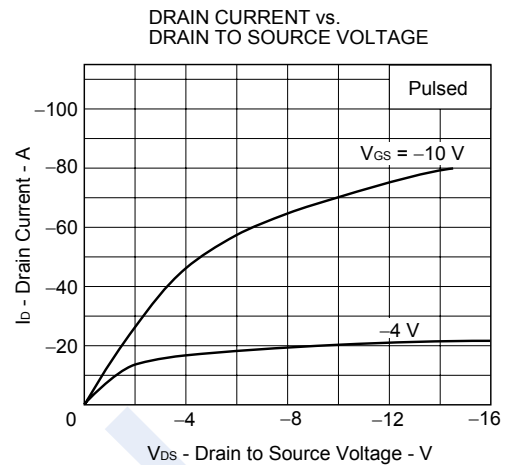
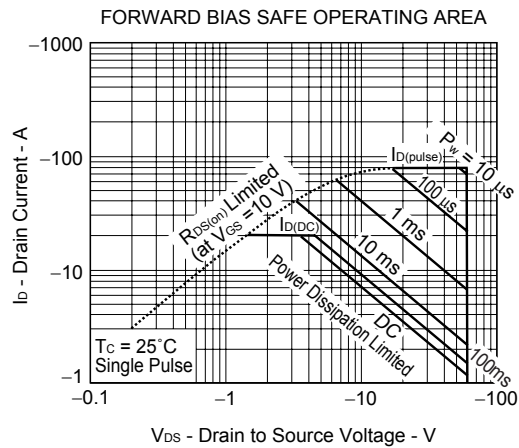
■ Typical Characteristics



P-Channel MOSFET

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Typical Characteristics

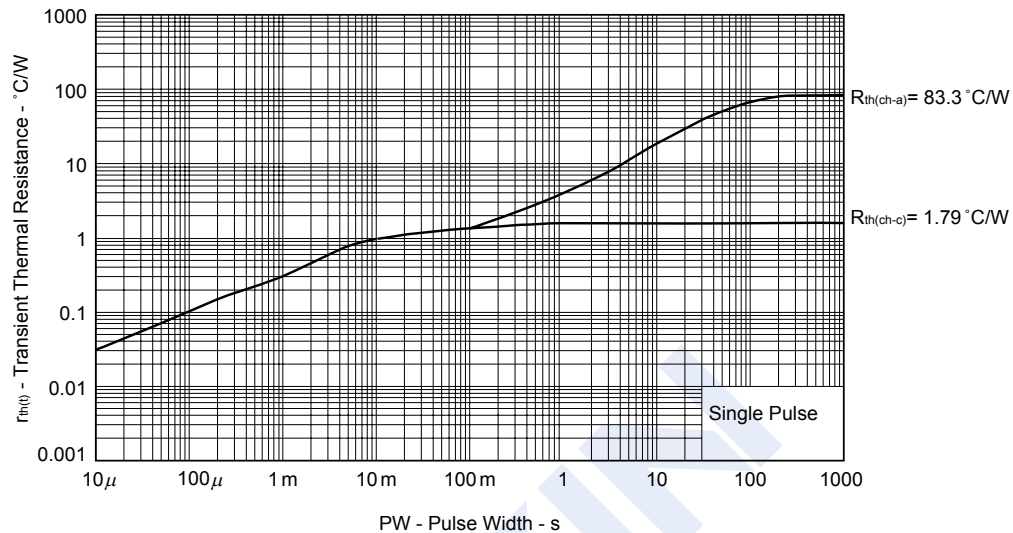


P-Channel MOSFET

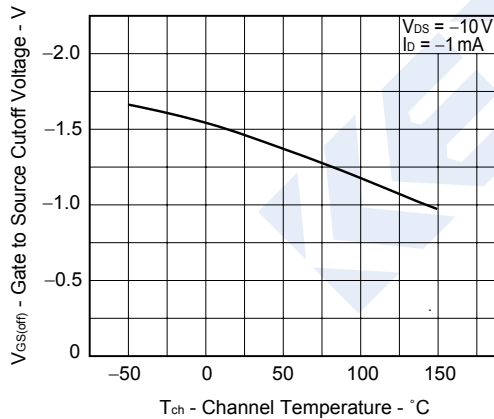
2SJ492-ZJ

Typical Characteristics

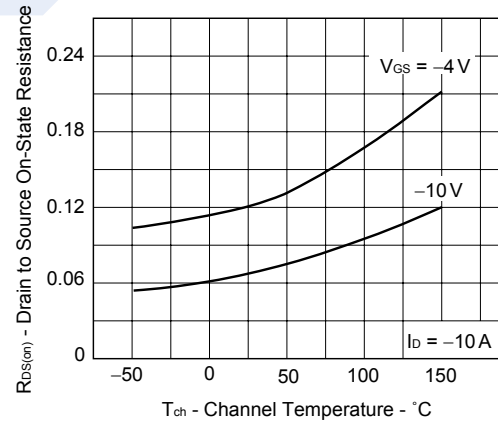
TRANSIENT THERMAL RESISTANCE vs. PULSE WIDTH



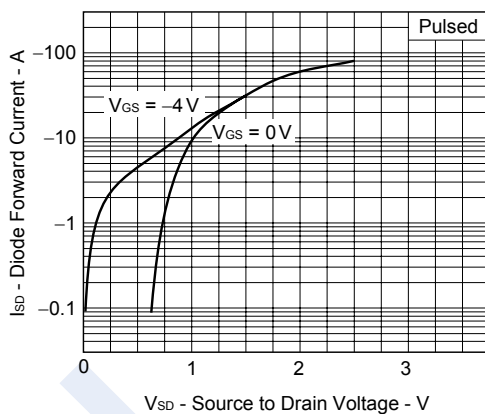
GATE TO SOURCE CUTOFF VOLTAGE vs. CHANNEL TEMPERATURE



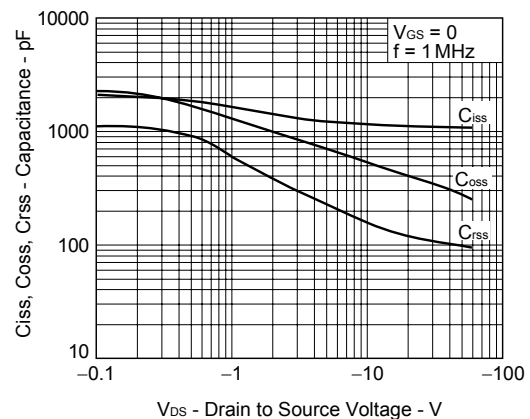
DRAIN TO SOURCE ON-STATE RESISTANCE vs. CHANNEL TEMPERATURE



SOURCE TO DRAIN DIODE FORWARD VOLTAGE



CAPACITANCE vs. DRAIN TO SOURCE VOLTAGE



P-Channel MOSFET

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■ Typical Characteristics

