

Specifications

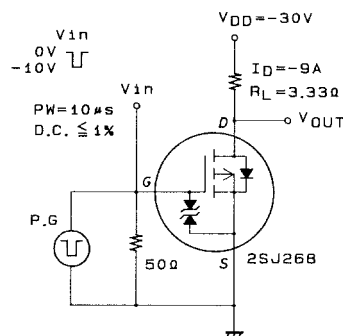
Absolute Maximum Ratings at $T_a = 25^{\circ}\text{C}$

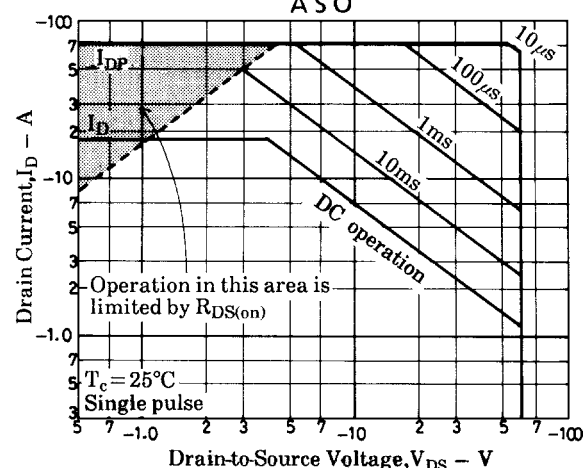
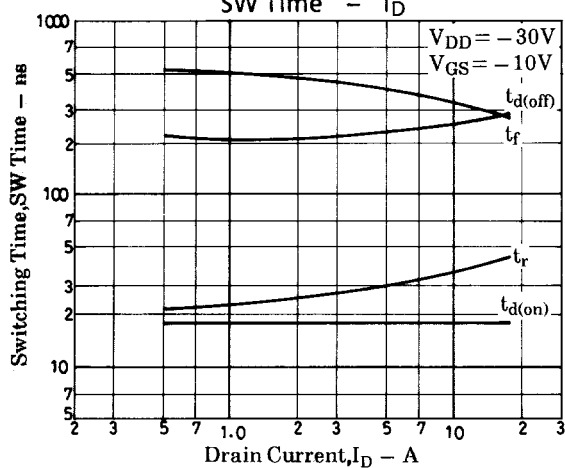
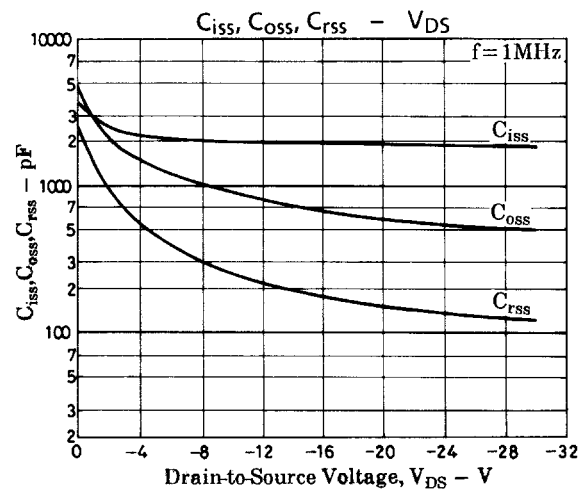
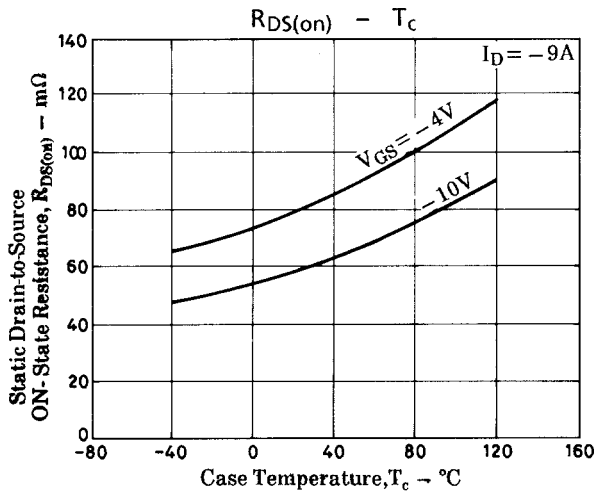
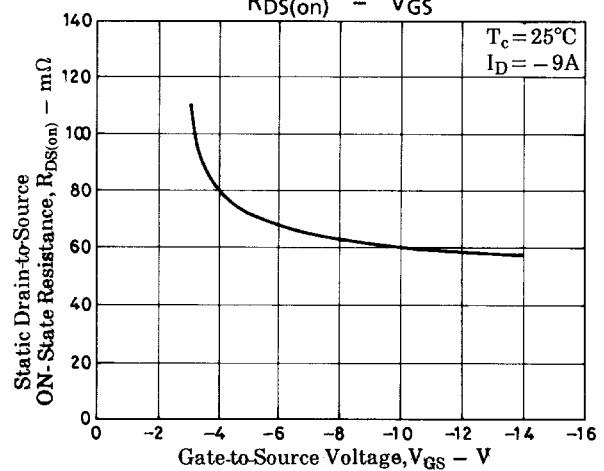
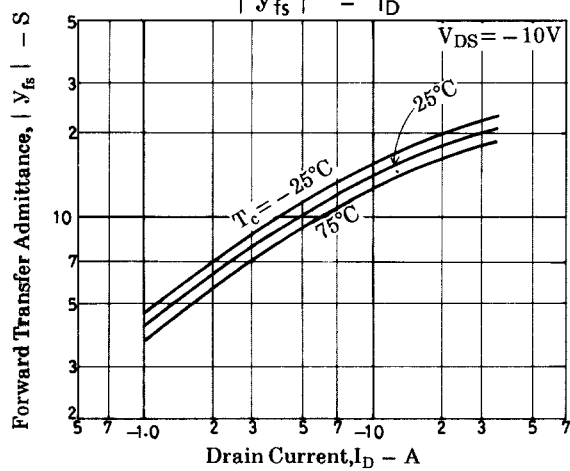
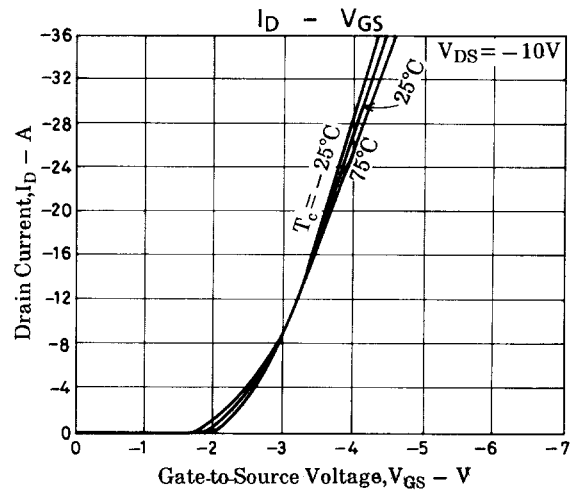
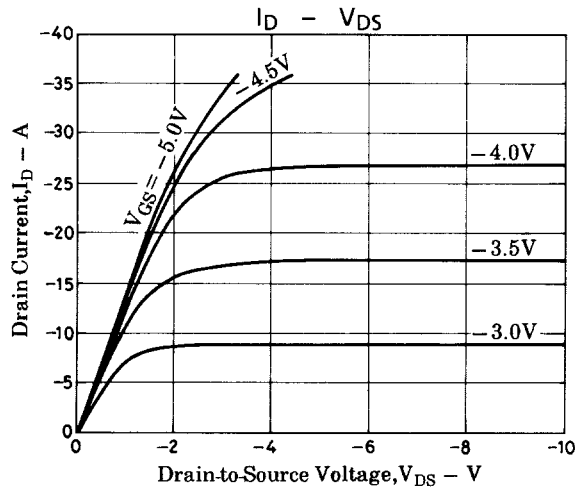
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		-60	V
Gate-to-Source Voltage	V_{GSS}		± 15	V
Drain Current (DC)	I_{D}		-18	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu\text{s}$, duty cycle $\leq 1\%$	-72	A
Allowable Power Dissipation	P_{D}		1.65	W
		$T_c = 25^{\circ}\text{C}$	70	W
Channel Temperature	T_{ch}		150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics at $T_a = 25^{\circ}\text{C}$

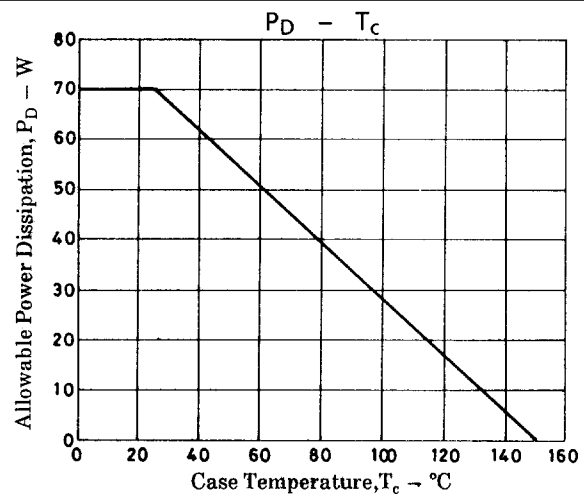
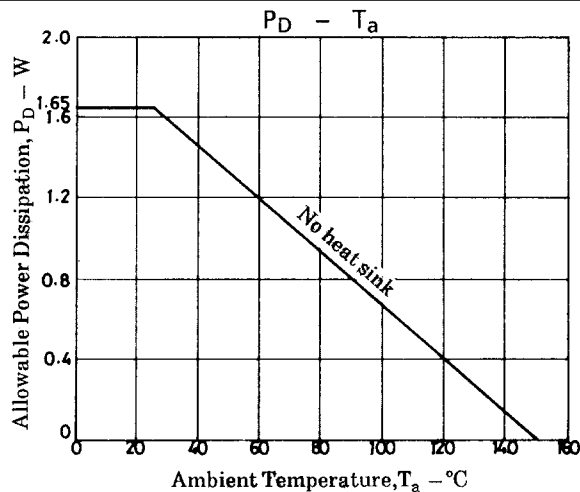
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(\text{BR})\text{DSS}}$	$I_{\text{D}} = -1\text{mA}$, $V_{\text{GS}} = 0$	-60			V
Gate-to-Source Breakdown Voltage	$V_{(\text{BR})\text{GSS}}$	$I_{\text{G}} = \pm 100\mu\text{A}$, $V_{\text{DS}} = 0$	± 15			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{\text{DS}} = -60\text{V}$, $V_{\text{GS}} = 0$			-100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{\text{GS}} = \pm 12\text{V}$, $V_{\text{DS}} = 0$			± 10	μA
Cutoff Voltage	$V_{\text{GS(off)}}$	$V_{\text{DS}} = -10\text{V}$, $I_{\text{D}} = -1\text{mA}$	-1.0		-2.0	V
Forward Transfer Admittance	$ y_{\text{fs}} $	$V_{\text{DS}} = -10\text{V}$, $I_{\text{D}} = -9\text{A}$	8	13.5		S
Static Drain-to-Source ON-State Resistance	$R_{\text{DS(on)}}$	$I_{\text{D}} = -9\text{A}$, $V_{\text{GS}} = -10\text{V}$		60	80	$\text{m}\Omega$
	$R_{\text{DS(on)}}$	$I_{\text{D}} = -9\text{A}$, $V_{\text{GS}} = -4\text{V}$		80	110	$\text{m}\Omega$
Input Capacitance	C_{iss}	$V_{\text{DS}} = -20\text{V}$, $f = 1\text{MHz}$		1900		pF
Output Capacitance	C_{oss}	$V_{\text{DS}} = -20\text{V}$, $f = 1\text{MHz}$		600		pF
Reverse Transfer Capacitance	C_{rss}	$V_{\text{DS}} = -20\text{V}$, $f = 1\text{MHz}$		150		pF
Turn-ON Delay Time	$t_{\text{d(on)}}$	See specified Test Circuit		18		ns
Rise Time	t_{r}	See specified Test Circuit		35		ns
Turn-OFF Delay Time	$t_{\text{d(off)}}$	See specified Test Circuit		350		ns
Fall Time	t_{f}	See specified Test Circuit		250		ns
Diode Forward Voltage	V_{SD}	$I_{\text{S}} = -18\text{A}$, $V_{\text{GS}} = 0$		-1.0	-1.5	V

Switching Time Test Circuit





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