

<b>SANYO</b>	No.4242	<b>2SJ257</b>
		P-Channel MOS Silicon FET Very High-Speed Switching Applications

**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Surface mount type device making the following possible.
  - Reduction in the number of manufacturing processes for 2SJ257-applied equipment.
  - High density surface mount applications.
  - Small size of 2SJ257-applied equipment.

**Absolute Maximum Ratings at Ta = 25°C**

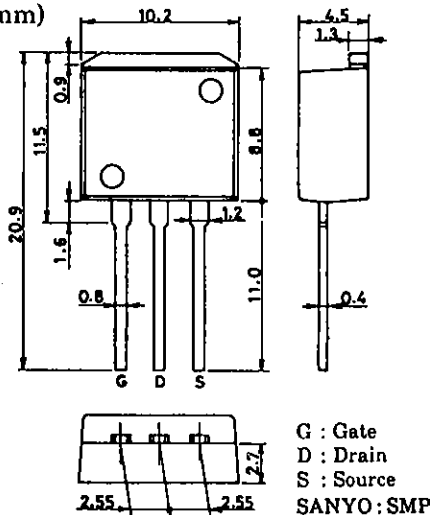
Drain to Source Voltage	$V_{DSS}$		-30	V	unit
Gate to Source Voltage	$V_{GSS}$		$\pm 15$	V	
Drain Current(DC)	$I_D$		-10	A	
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10 \mu s, \text{ duty cycle} \leq 1\%$	-40	A	
Allowable Power Dissipation	$P_D$		1.65	W	
		$T_c = 25^\circ C$		50	W
Channel Temperature	$T_{ch}$		150	$^\circ C$	
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$	

**Electrical Characteristics at Ta = 25°C**

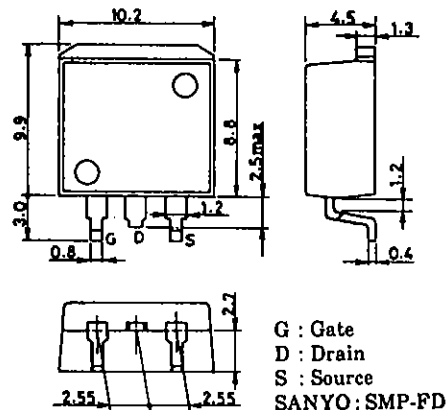
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-30			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100 \mu A, V_{DS} = 0$	$\pm 15$			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -30V, V_{GS} = 0$			-100	$\mu A$
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0$			$\pm 10$	$\mu A$
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-1.0		-2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10V, I_D = -5A$	4	6.5		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -5A, V_{GS} = -10V$		85	120	m $\Omega$
	$R_{DS(on)}$	$I_D = -5A, V_{GS} = -4V$		120	170	m $\Omega$

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**Package Dimensions 2093**  
(unit: mm)



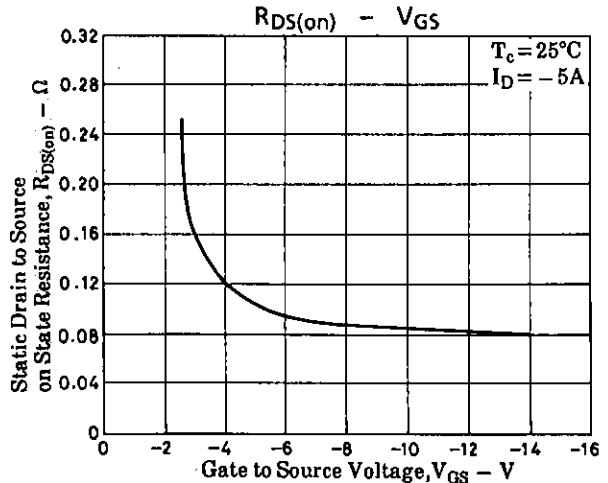
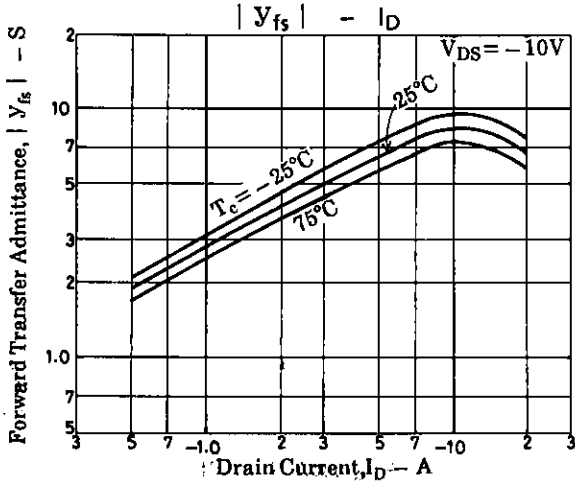
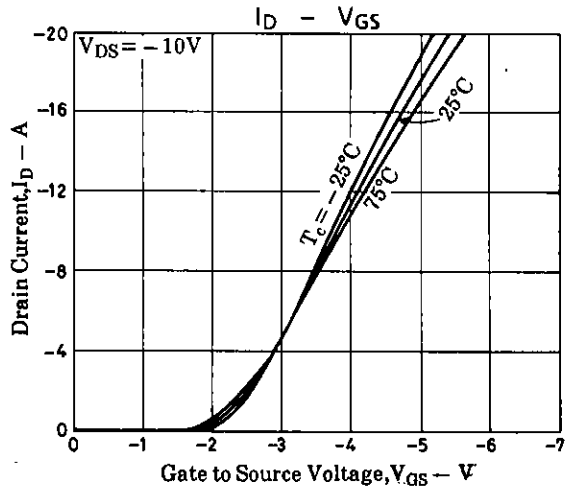
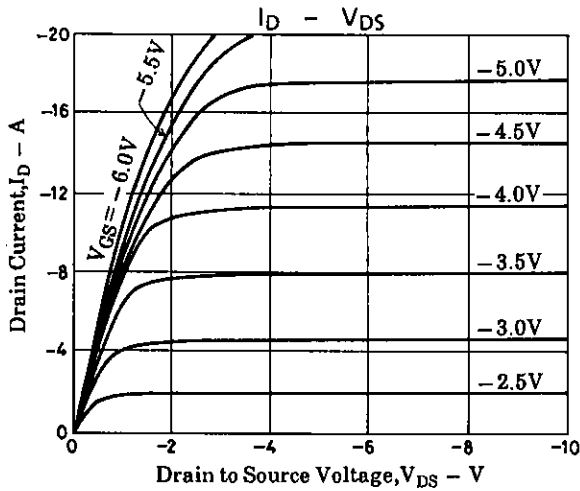
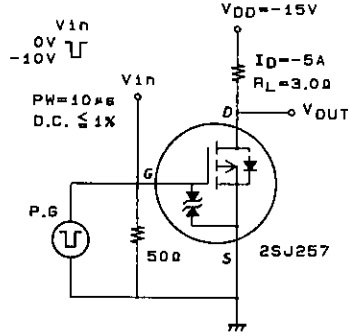
**Package Dimensions 2090**  
(unit: mm)

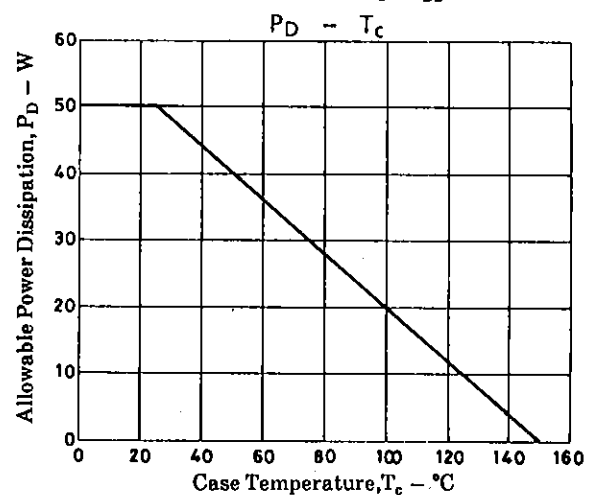
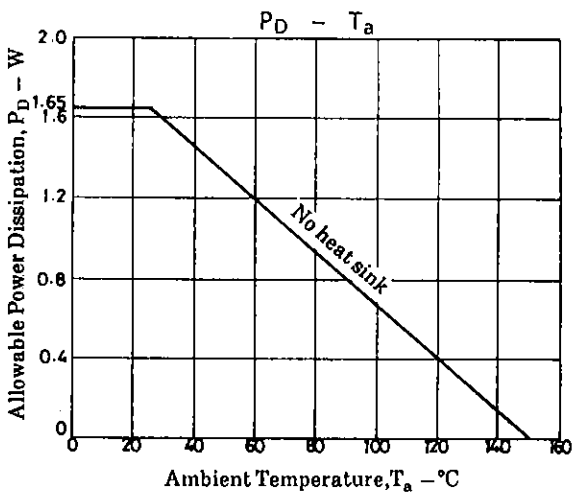
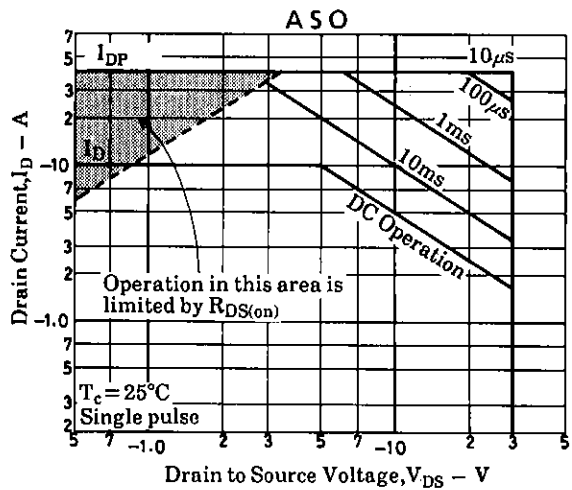
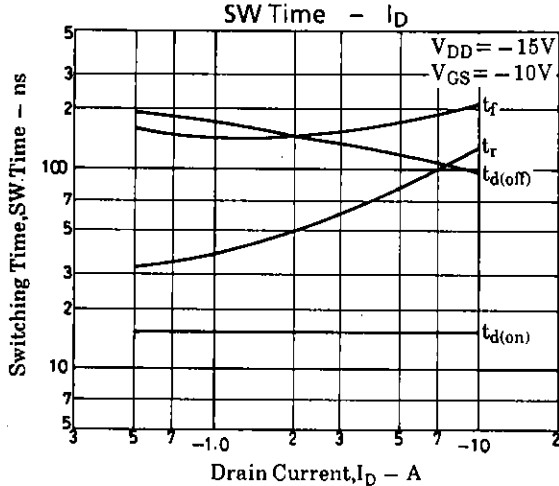
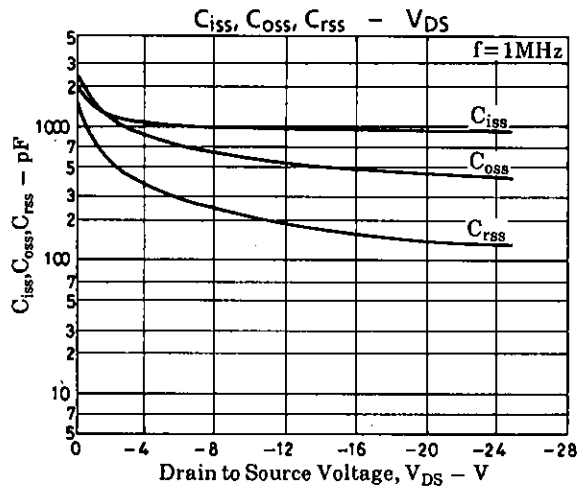
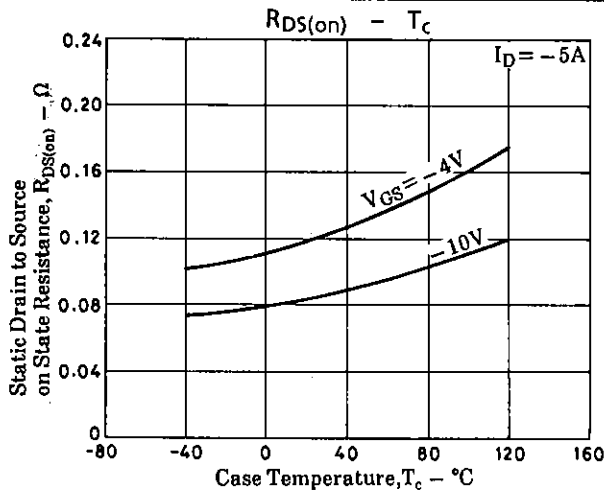


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			min	typ	max	unit
Input Capacitance	$C_{iss}$	$V_{DS} = -10V, f = 1MHz$		1000		pF
Output Capacitance	$C_{oss}$	$V_{DS} = -10V, f = 1MHz$		600		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = -10V, f = 1MHz$		220		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		15		ns
Rise Time	$t_r$	"		80		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		120		ns
Fall Time	$t_f$	"		170		ns
Diode Forward Voltage	$V_{SD}$	$I_S = -10A, V_{GS} = 0$	-1.0	-1.5		V

Switching Time Test Circuit





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