

**SANYO**

No.4231

**2SJ254**

P-Channel MOS Silicon FET

Very High-Speed  
Switching Applications**Features**

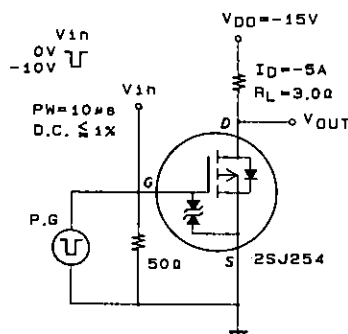
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Micaless package facilitating mounting.

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

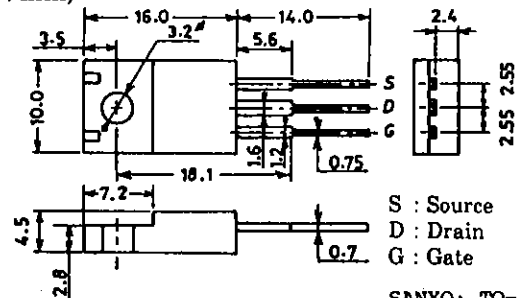
			unit
Drain to Source Voltage	$V_{DS}$	-30	V
Gate to Source Voltage	$V_{GS}$	$\pm 15$	V
Drain Current(DC)	$I_D$	-8	A
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10\mu s, \text{duty cycle} \leq 1\%$	-32 A
Allowable Power Dissipation	$P_D$	2.0	W
		$T_c = 25^\circ\text{C}$	25 W
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1\text{mA}, V_{GS} = 0$	-30			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu\text{A}, V_{DS} = 0$	$\pm 15$			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -30\text{V}, V_{GS} = 0$			-100	$\mu\text{A}$
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12\text{V}, V_{DS} = 0$			$\pm 10$	$\mu\text{A}$
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10\text{V}, I_D = -1\text{mA}$	-1.0		-2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10\text{V}, I_D = -5\text{A}$	4	6.5		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -5\text{A}, V_{GS} = -10\text{V}$		85	120	$\text{m}\Omega$
	$R_{DS(on)}$	$I_D = -5\text{A}, V_{GS} = -4\text{V}$		120	170	$\text{m}\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = -10\text{V}, f = 1\text{MHz}$		1000		pF
Output Capacitance	$C_{oss}$	$V_{DS} = -10\text{V}, f = 1\text{MHz}$		600		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = -10\text{V}, f = 1\text{MHz}$		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	$V_{SD}$	$I_S = -8\text{A}, V_{GS} = 0$	-1.0	-1.5		V

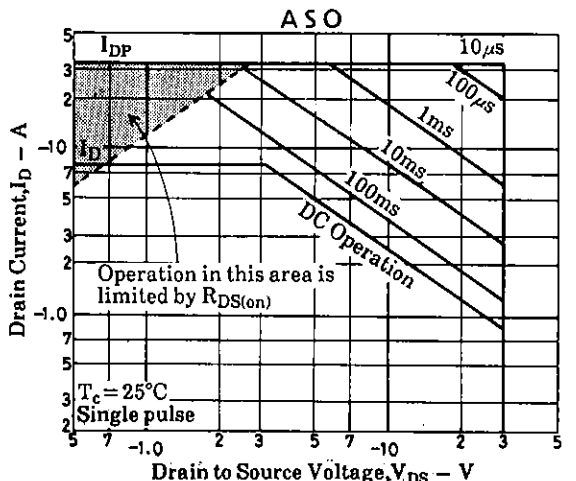
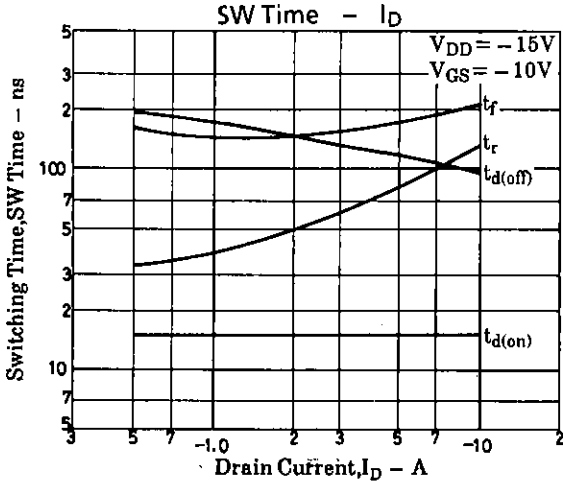
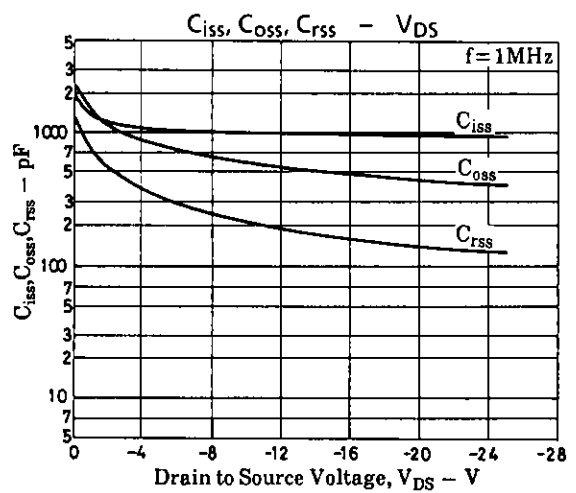
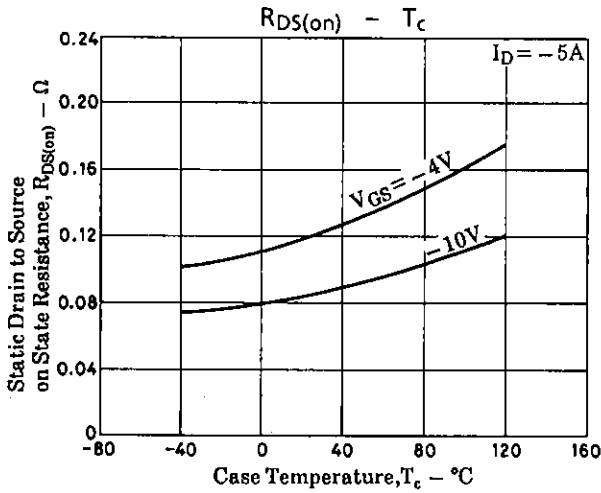
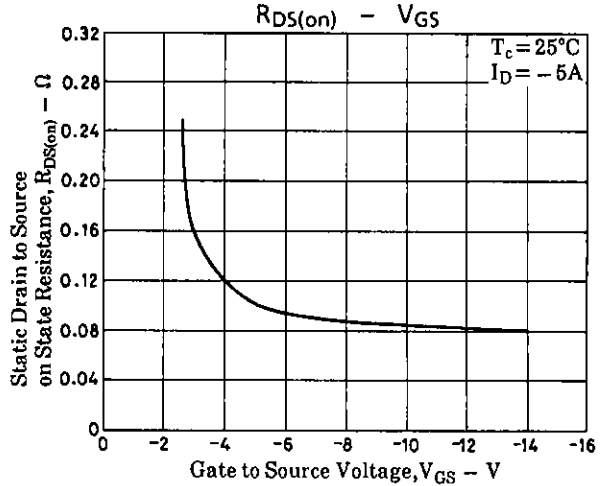
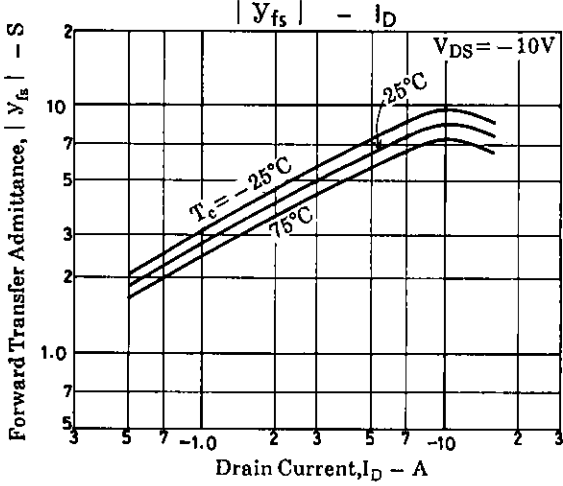
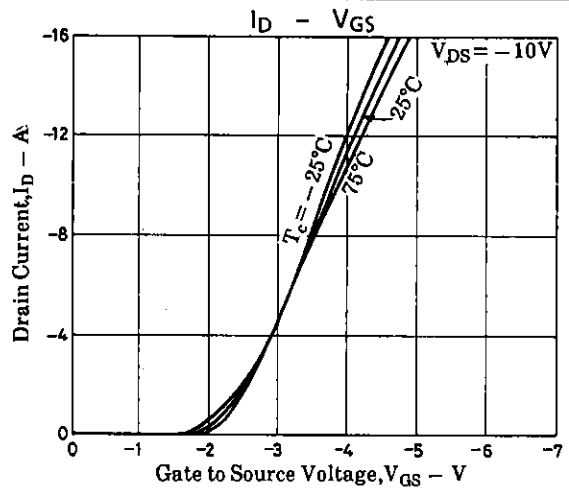
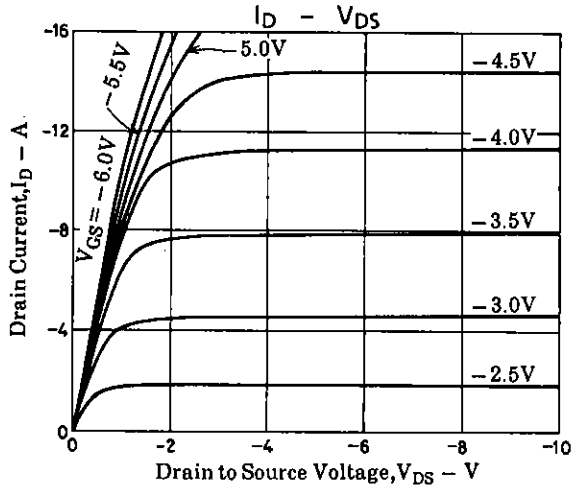
**Switching Time Test Circuit****Package Dimensions 2063**

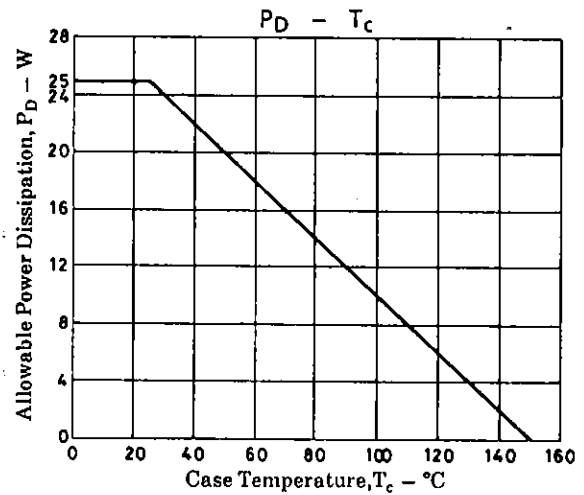
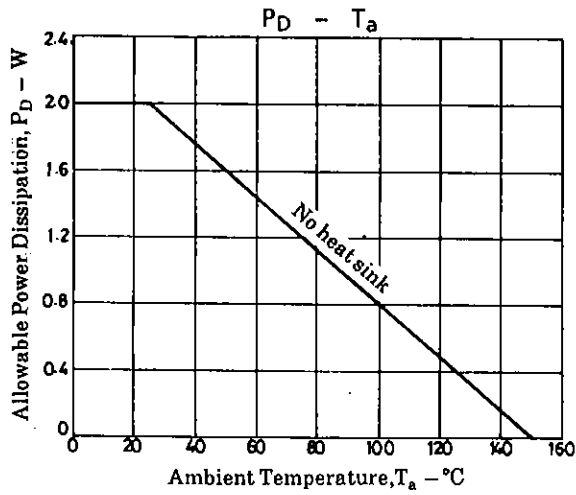
(unit : mm)

S : Source  
D : Drain  
G : Gate

SANYO: TO-220ML

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