

No.4239

2SJ274

P-Channel MOS Silicon FET

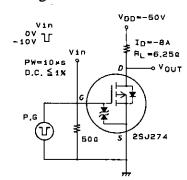
Very High-Speed Switching Applications

## **Features**

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

Absolute Maximum Ratings at Ta = 25°C unit						
Drain to Source Voltage	$V_{DSS}$		-100 V			
Gate to Source Voltage	$V_{GSS}$	•	±15 V			
Drain Current(DC)	$I_{\mathbf{D}}$		-12 A			
Drain Current(Pulse)	$I_{DP}$	$PW \le 10 \mu s$ , duty cycle $\le 1\%$		-48	A	
Allowable Power Dissipation	$P_{D}$	,		2.0	ŵ	
	- <b>D</b>	$T_c = 25^{\circ}C$		30	w	
Channel Temperature	Tch	#C 10 0	150 °C			
Storage Temperature	Tstg		-55  to  +150 °C			
Electrical Characteristics at Ta = 25°C			min	typ	max	unit
D-S Breakdown Voltage	VIRRIDGE	$I_D = -1 \text{mA}, V_{GS} = 0$	-100	ijР	mun	V
G-S Breakdown Voltage		$I_{G} = \pm 100 \mu A, V_{DS} = 0$	±15			v
Zero Gate Voltage	IDSS	$V_{DS} = -100V_1V_{GS} = 0$			-100	μÅ
Drain Current	200	20 = 111, 40			100	٠
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0$			±10	$\mu$ A
Cutoff Voltage	V <sub>GS(off)</sub>	$V_{DS} = -10V, I_{D} = -1mA$	-1.0		-2.0	V
Forward Transfer Admittance	$ \mathbf{\tilde{y}_{fs}} $	$V_{DS} = -10V, I_D = -8A$	7.5	13	#.0	Ś
Static Drain to Source	$R_{DS(on)}$	$I_{\rm D} = -8A, V_{\rm GS} = -10V$		120	160	$m\Omega$
on State Resistance	R <sub>DS(on)</sub>	$I_D = -8A, V_{GS} = -4V$		160	220	$\mathrm{m}\Omega$
Input Capacitance	Ciss	$V_{DS} = -20V, f = 1MHz$	1900		рF	
Output Capacitance		$V_{DS} = -20V, f = 1MHz$	400		pF	
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = -20V, f = 1MHz$		80		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.	18		ns	
Rise Time	$\mathbf{t_r}$	,,		25		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		300		ns
Fall Time	tf	<b>,</b>		120		ns
Diode Forward Voltage	$\dot{v}_{SD}$	$I_S = -12A, V_{GS} = 0$		-1.0	-1.5	V

## Switching Time Test Circuit



## Package Dimensions 2063

(unit : mm)

3.5

16.0

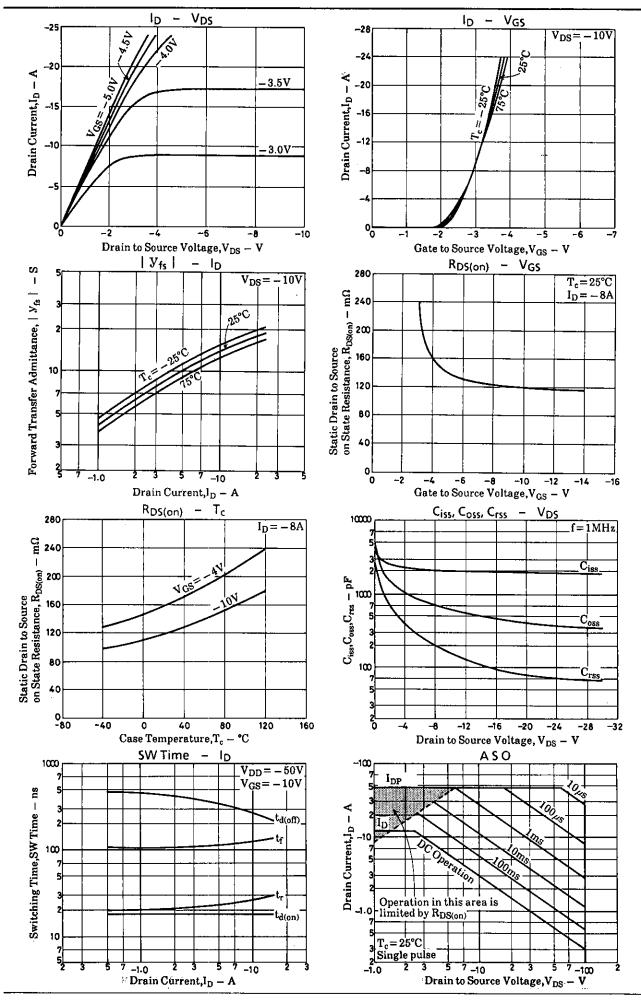
3.2

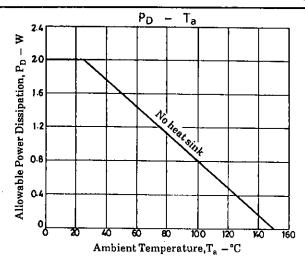
5.6

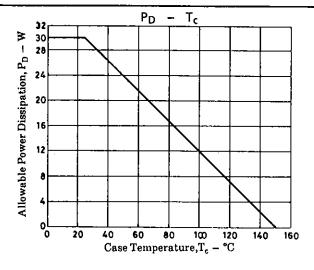
0.75

S : Source
D : Drain
O.75

SANYO: TO-220ML







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