

No.3821

2SK1726

N-Channel MOS Silicon FET Very High-Speed

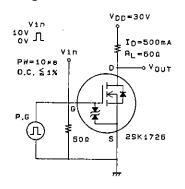
Switching Applications

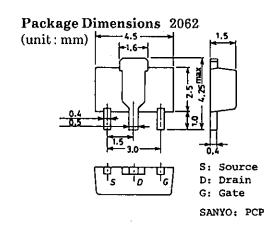
Features

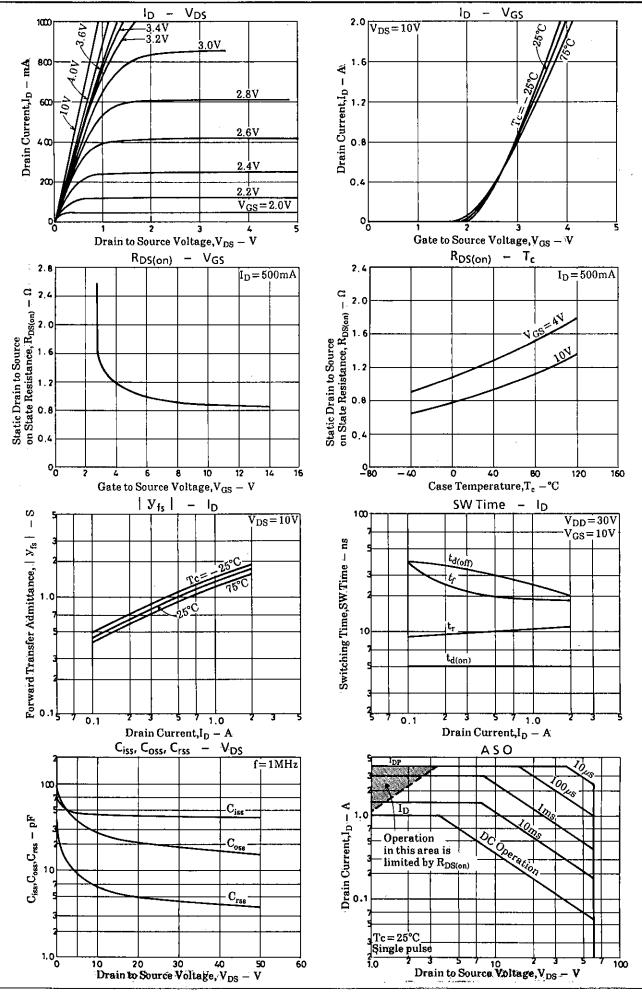
- · Low ON resistance.
- · Very high-speed switching.
- · Low-voltage drive.

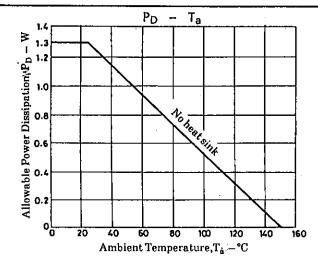
Absolute Maximum Ratings at Ta = 25°C				unit			
Drain to Source Voltage	V_{DSS}			60	V		
Gate to Source Voltage	V_{GSS}		=	± 15	V		
Drain Current(DC)	$I_{\mathbf{D}}$			1	Α		
Drain Current(Pulse)	I_{DP}	PW≦10µs, duty cycle≦1%	4		Α		
Allowable Power Dissipation	P_{D}	$T_c = 25$ °C	3.5		W		
		Mounted on ceramic board	1.3		W		
		$(250 \text{mm}^2 \times 0.8 \text{mm})$					
Channel Temperature	Tch		150		$^{\circ}\mathrm{C}$		
Storage Temperature	Tstg		-55 to +150		$^{\circ}\mathrm{C}$		
Electrical Characteristics at Ta = 25°C				typ	max	unit	
D-S Breakdown Voltage		$I_D = 1 \text{mA}, V_{GS} = 0$	min 60	· cy p	шах	V	
Zero Gate Voltage	I _{DSS}	$V_{DS} = 60 \text{ V}, V_{GS} = 0$	00		10	$\mu {f A}$	
Drain Current	-099	*DS=00*,*GS=0			10	μ A	
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12V, V_{DS} = 0$			±10	μ A	
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	1.0		2.0	, V	
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10V, I_{D} = 500 \text{mA}$	0.6	1.0		S	
Static Drain to Source	$R_{DS(on)}$	$I_D = 500 \text{mA}, V_{GS} = 10 \text{V}$		0.9	1.2	Ω	
on State Resistance	$R_{DS(on)}$	$I_D = 500 \text{mA}, V_{GS} = 4 \text{V}$		1.2	1.6	Ω	
Input Capacitance	C_{iss}	$V_{DS} = 20V, f = 1MHz$		45		pF	
Output Capacitance	C_{oss}	$V_{DS} = 20V, f = 1MHz$		22		pF	
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20V, f = 1MHz$	5		pF		
Turn-ON Delay Time	$\mathbf{t_{d(on)}}$	See specified Test Circuit.		5		ns	
Rise Time	$\mathbf{t_r}$	· "		10		ns	
Turn-OFF Delay Time	${ m t_{d(off)}}$	"		30		ns	
Fall Time	t_f	"		20		ns	
Diode Forward Voltage	V_{SD}	$I_S = 1A, V_{GS} = 0$		1.0		V	

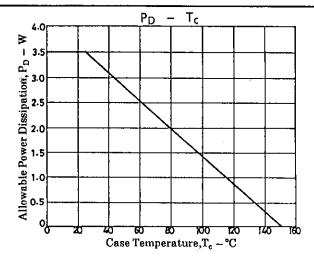
Switching Time Test Circuit











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