

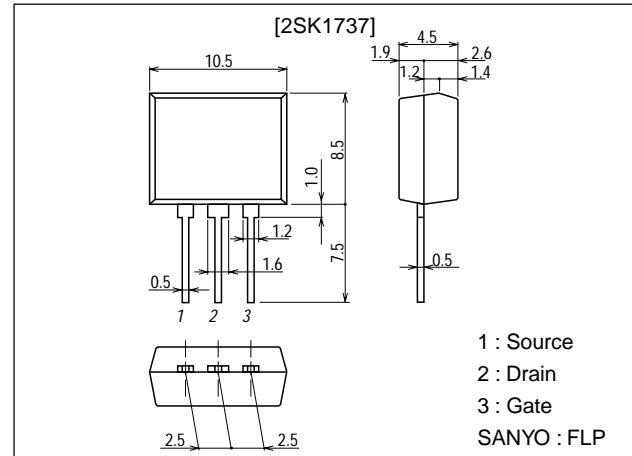
**2SK1737****Ultrahigh-Speed Switching Applications****Features**

- Low ON resistance.
- Ultrahigh-speed switching.
- Low-voltage drive.
- Its height onboard is 9.5mm.
- Meets radial taping.

Package Dimensions

unit:mm

2085A

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

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		100	V
Gate-to-Source Voltage	V_{GS}		± 15	V
Drain Current (DC)	I_D		1.8	A
Drain Current (pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	7.2	A
Allowable Power Dissipation	P_D		1.5	W
Channel Temperature	T_{ch}		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA$, $V_{GS}=0$	100			V
Gate-to-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G=\pm 100\mu A$, $V_{DS}=0$	± 15			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V$, $V_{GS}=0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 12V$, $V_{DS}=0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V$, $I_D=1mA$	1.0		2.0	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V$, $I_D=1A$	1.8	2.8		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=1A$, $V_{GS}=10V$		0.3	0.4	Ω
	$R_{DS(on)2}$	$I_D=1A$, $V_{GS}=4V$		0.4	0.55	Ω

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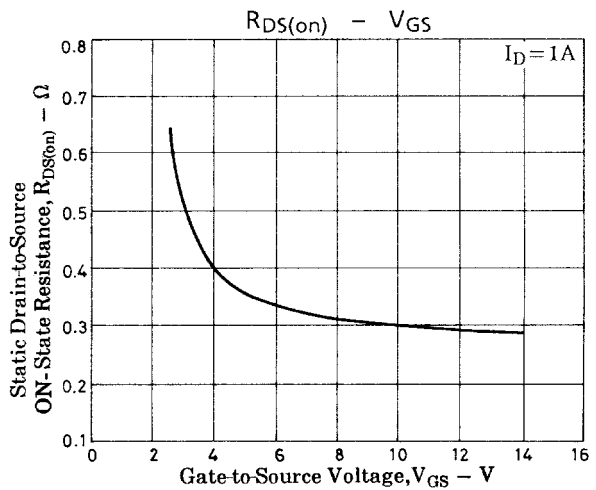
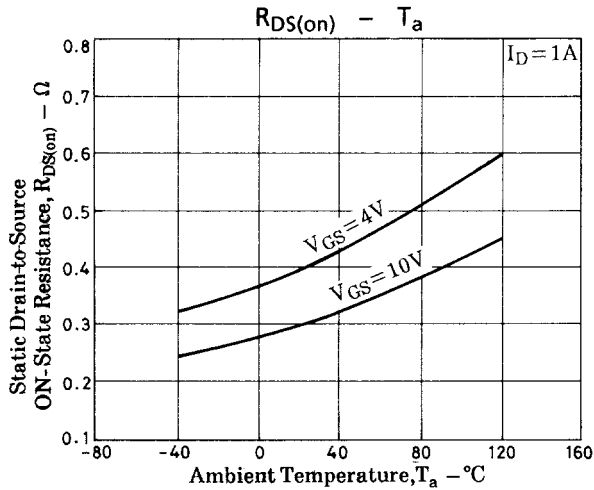
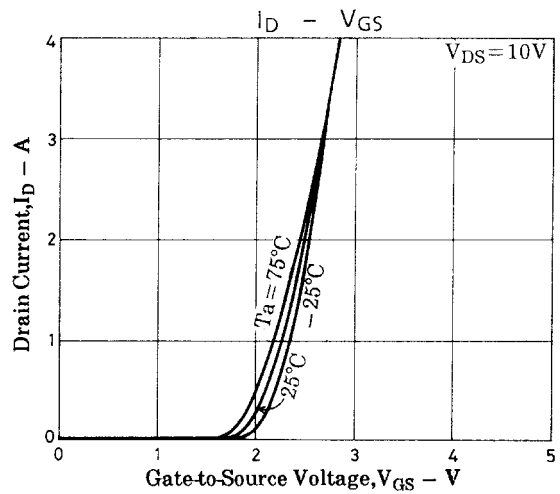
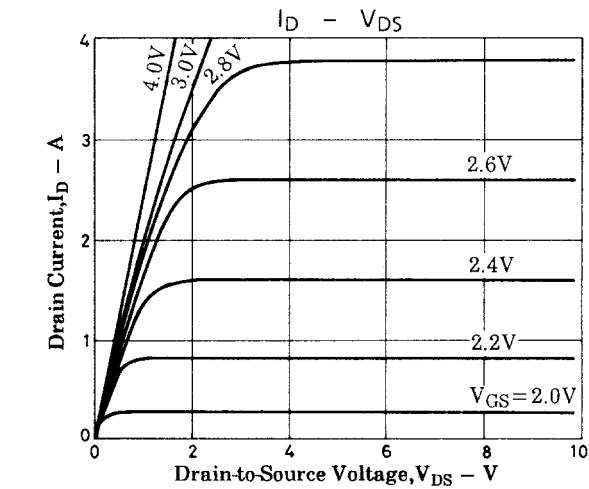
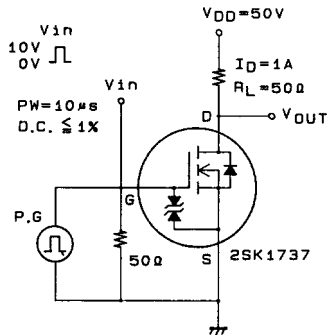
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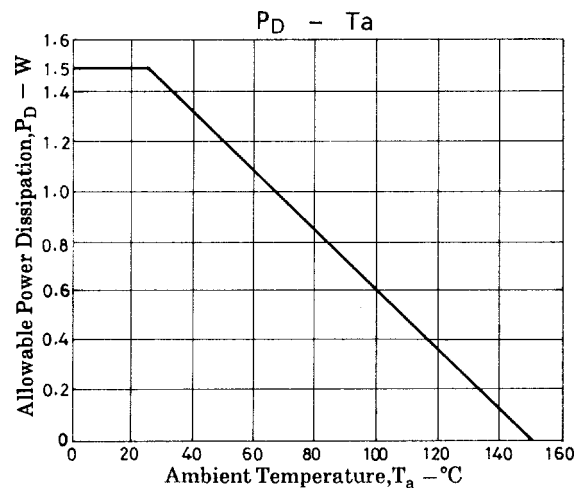
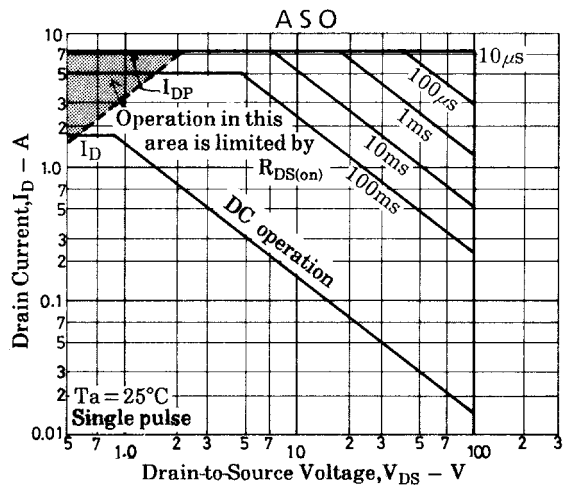
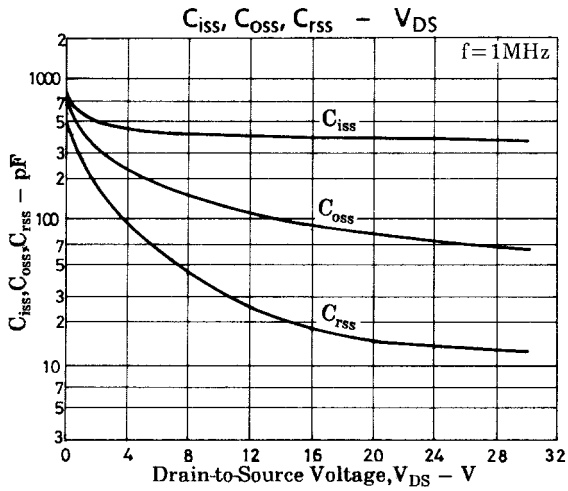
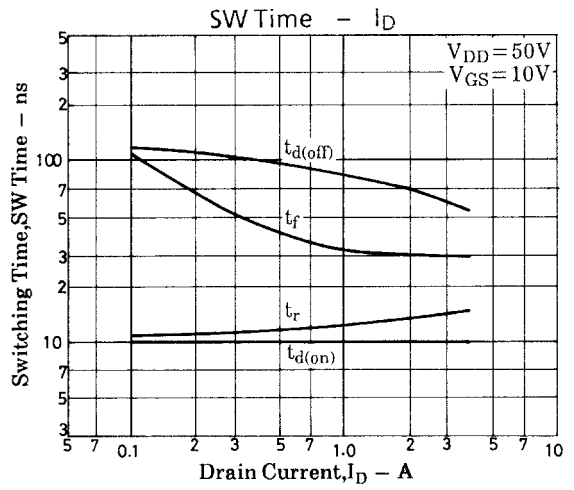
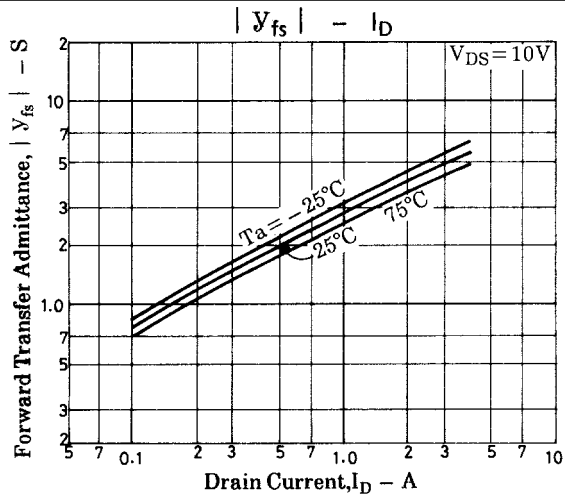
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Parameter	Symbol	Conditions	Ratings		Unit
Input Capacitance	C _{iss}	V _{DS} =20V, f=1MHz	380		pF
Output Capacitance	C _{oss}	V _{DS} =20V, f=1MHz	80		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =20V, f=1MHz	15		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit	10		ns
Rise Time	t _r	See specified Test Circuit	12		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit	80		ns
Fall Time	t _f	See specified Test Circuit	30		ns
Diode Forward Voltage	V _{SD}	I _S =1.8A, V _{GS} =0	1.0	1.5	V

Switching Time Test Circuit



2SK1737



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