

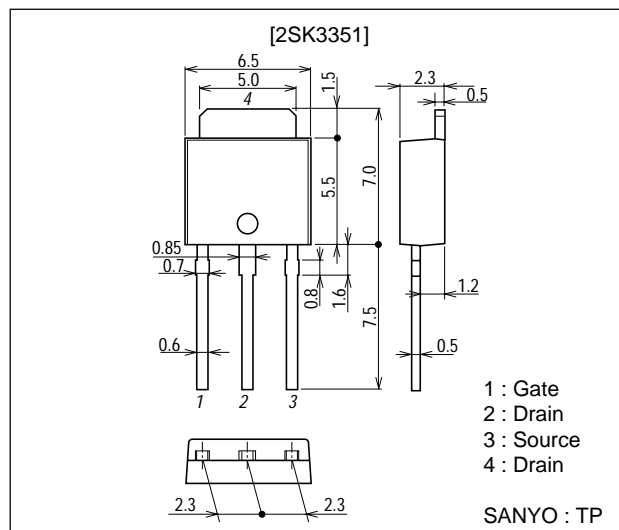
SANYO**2SK3351****DC/DC Converter Applications****Preliminary****Features**

- Low ON resistance.
- Ultrahigh-speed switching.
- 4V-drive.

Package Dimensions

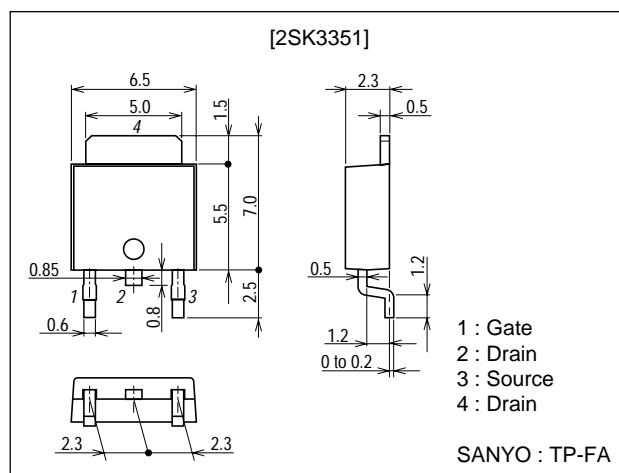
unit : mm

2083B



unit : mm

2092B



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Specifications

Absolute Maximum Ratings at Ta=25°C

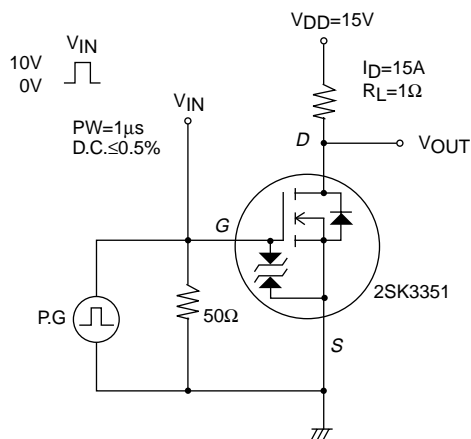
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		30	V
Gate-to-Source Voltage	V_{GS}		± 20	V
Drain Current (DC)	I_D		30	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	60	A
Allowable Power Dissipation	P_D		1	W
		$T_C = 25^\circ C$	30	W
Channel Temperature	T_{ch}		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA$, $V_{GS} = 0$	30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 30V$, $V_{GS} = 0$			1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16V$, $V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V$, $I_D = 1mA$	1.0		2.4	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10V$, $I_D = 15A$	14	20		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = 15A$, $V_{GS} = 10V$		11	15	$m\Omega$
	$R_{DS(on)2}$	$I_D = 4A$, $V_{GS} = 4.5V$		15	21	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS} = 10V$, $f = 1MHz$		1450		pF
Output Capacitance	C_{oss}	$V_{DS} = 10V$, $f = 1MHz$		420		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10V$, $f = 1MHz$		210		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		14		ns
Rise Time	t_r	See specified Test Circuit		355		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		110		ns
Fall Time	t_f	See specified Test Circuit		120		ns
Total Gate Charge	Q_g	$V_{DS} = 10V$, $V_{GS} = 10V$, $I_D = 30A$		28		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS} = 10V$, $V_{GS} = 10V$, $I_D = 30A$		4.6		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS} = 10V$, $V_{GS} = 10V$, $I_D = 30A$		5		nC
Diode Forward Voltage	V_{SD}	$I_S = 30A$, $V_{GS} = 0$		0.92	1.2	V

Marking : K3351

Switching Time Test Circuit



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