Ordering number : ENN0000

P-Channel Silicon MOSFET

2SJ634

DC / DC Converter Applications

Preliminary

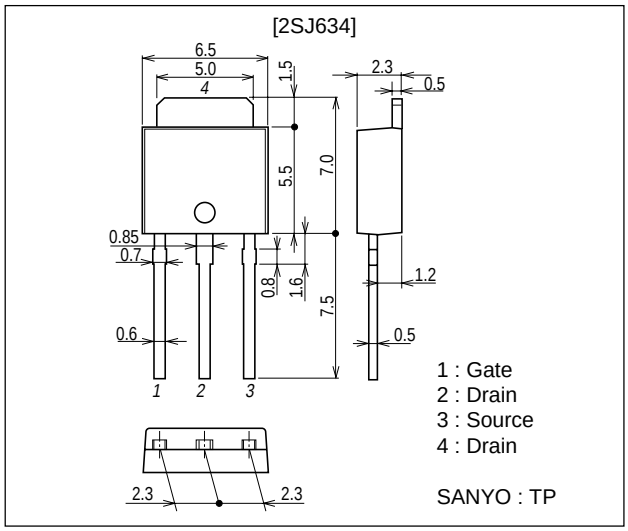
Features

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

Package Dimensions

unit : mm

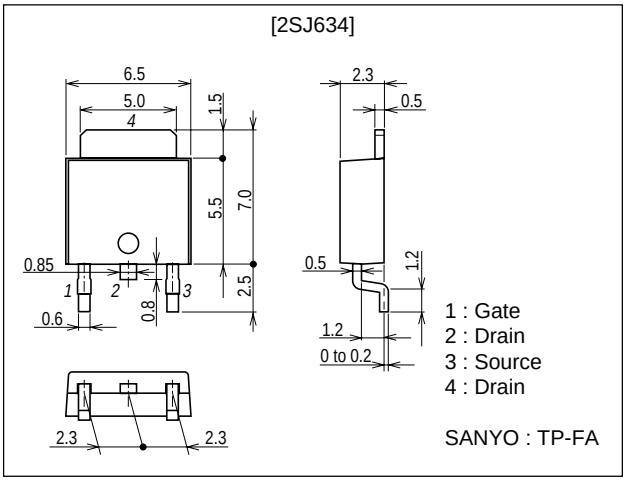
2083B



Package Dimensions

unit : mm

2092B



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		−60	V
Gate-to-Source Voltage	V_{GSS}		±20	V
Drain Current (DC)	I_D		−8	A
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	−32	A
Allowable Power Dissipation	P_D		1	W
		Tc=25°C	20	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		−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	−60			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=−60V, V_{GS}=0			−1	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±16V, V_{DS}=0			±10	μA
Gate-to-Source Cutoff Voltage	V_{GS}(off)	V_{DS}=−10V, I_D=−1mA	−1.2		−2.6	V
Forward Transfer Admittance	|yfs|	V_{DS}=−10V, I_D=−4A	4	7		S
Static Drain-to-Source On-State Resistance	R_{DS}(on)1	I_D=−4A, V_{GS}=−10V		105	138	mΩ
	R_{DS}(on)2	I_D=−4A, V_{GS}=−4V		145	205	mΩ
Input Capacitance	Ciss	V_{DS}=−20V, f=1MHz		990		pF
Output Capacitance	Coss	V_{DS}=−20V, f=1MHz		110		pF
Reverse Transfer Capacitance	Crss	V_{DS}=−20V, f=1MHz		76		pF
Turn-ON Delay Time	t_d(on)	See specified Test Circuit.		12		ns
Rise Time	t_r	See specified Test Circuit.		85		ns
Turn-OFF Delay Time	t_d(off)	See specified Test Circuit.		95		ns
Fall Time	t_f	See specified Test Circuit.		80		ns
Total Gate Charge	Qg	V_{DS}=−30V, V_{GS}=−10V, I_D=−8A		22		nC
Gate-to-Source Charge	Qgs	V_{DS}=−30V, V_{GS}=−10V, I_D=−8A		4		nC
Gate-to-Drain “Miller” Charge	Qgd	V_{DS}=−30V, V_{GS}=−10V, I_D=−8A		4		nC
Diode Forward Voltage	V_{SD}	I_S=−8A, V_{GS}=0		−0.95	−1.2	V

Switching Time Test Circuit