

Ordering number : ENN7537

P-Channl Silicon MOSFET



2SJ654

DC / DC Converter Applications

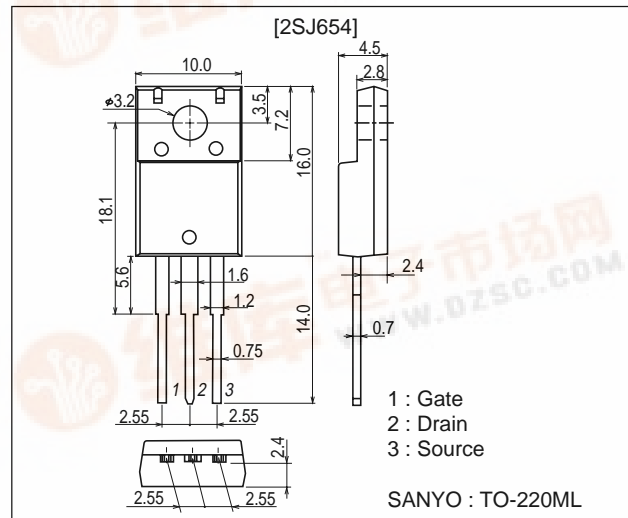
Features

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

Package Dimensions

unit : mm

2063A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-100	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		2.0	W
		T _c =25°C	20	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
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-100V, V _{GS} =0			-1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±16V, V _{DS} =0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-1.2		-2.6	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-4A	4	6		S

Marking : J654

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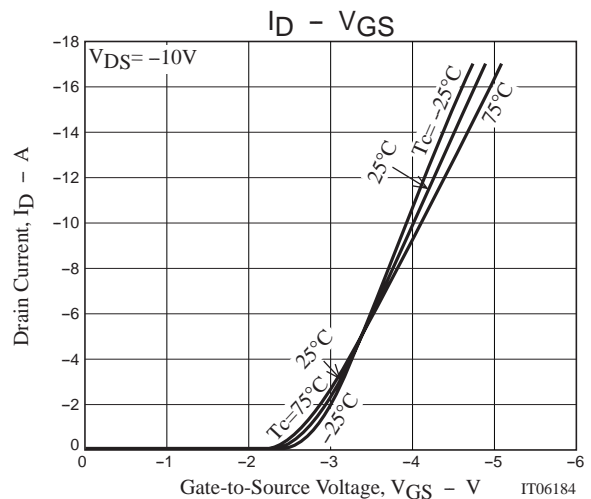
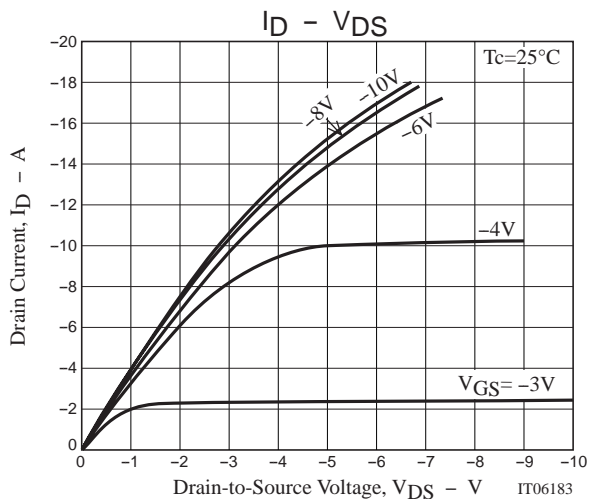
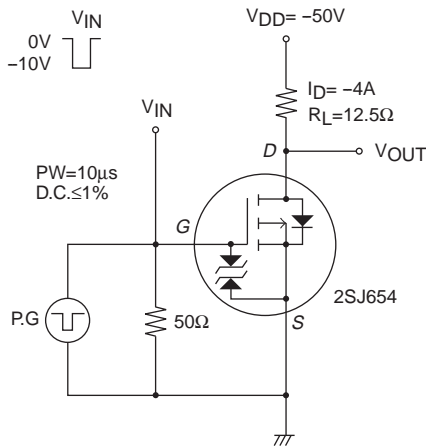


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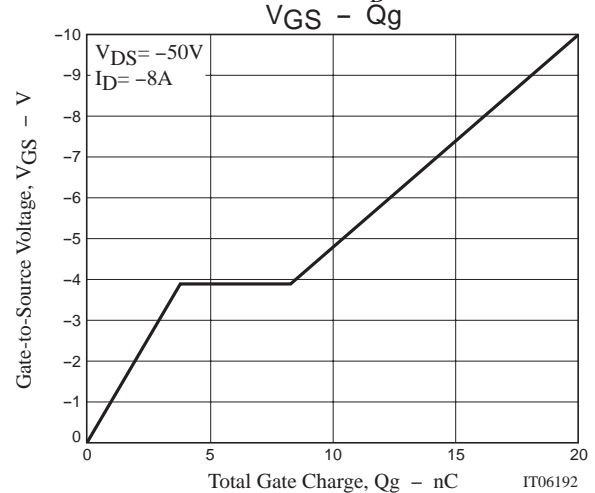
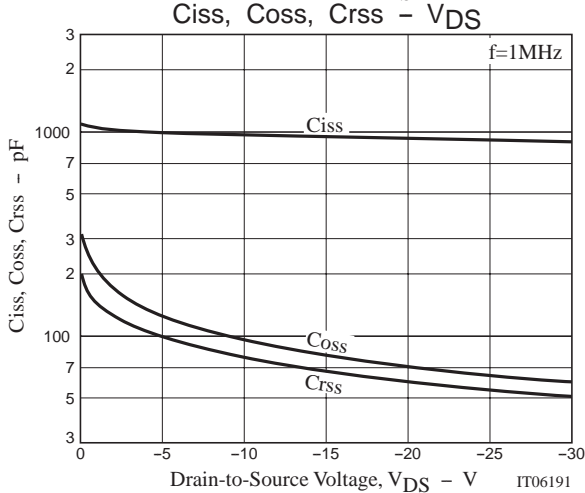
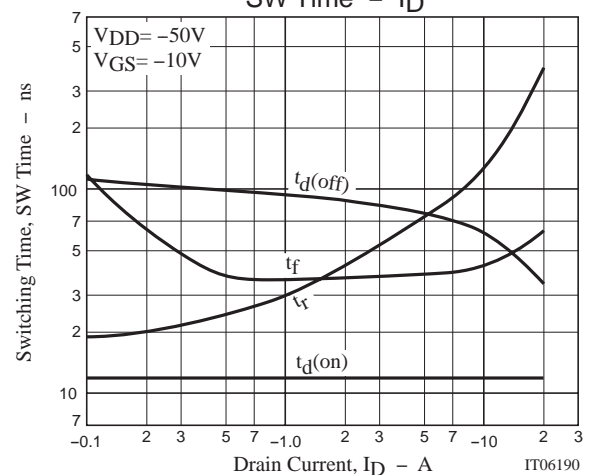
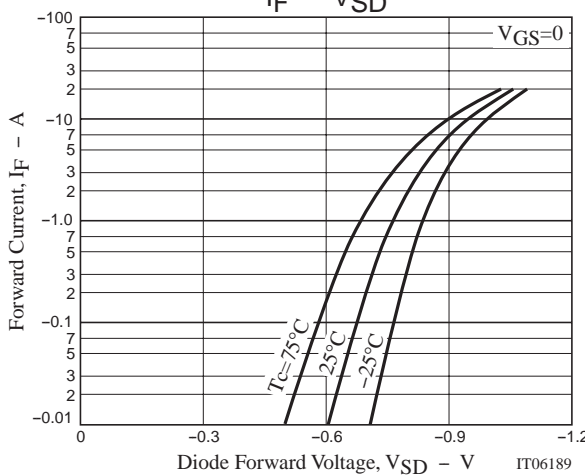
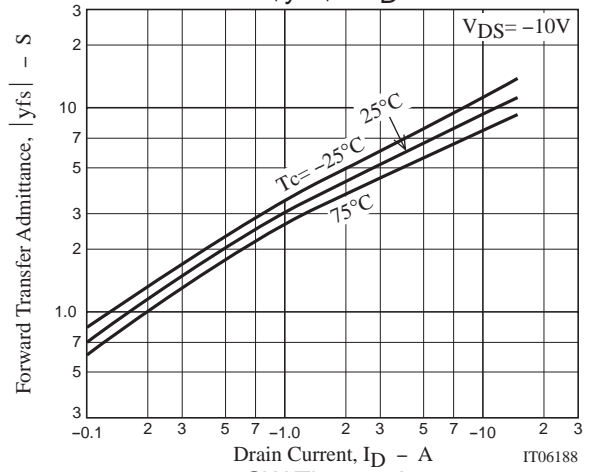
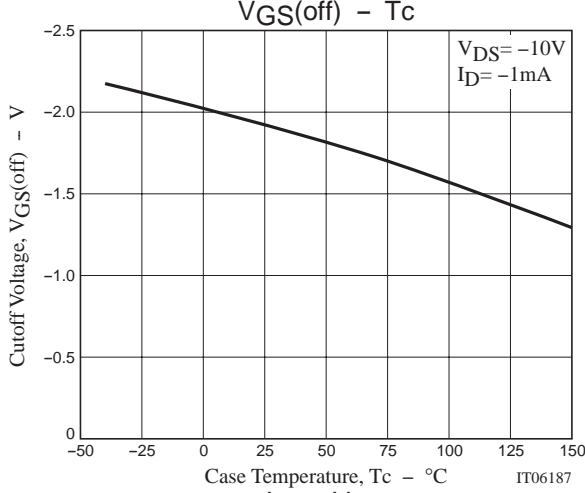
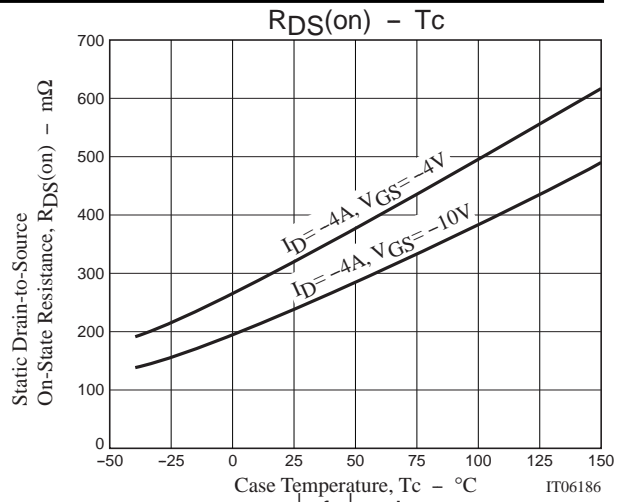
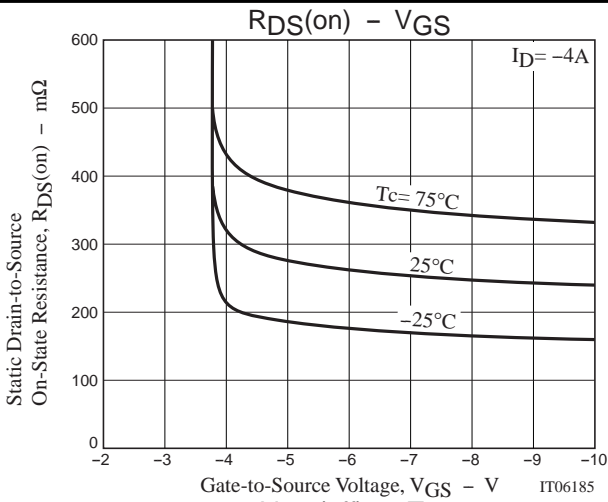
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-4A, V _{GS} =-10V		240	315	mΩ
	R _{DS(on)2}	I _D =-4A, V _{GS} =-4V		320	450	mΩ
Input Capacitance	C _{iss}	V _{DS} =-20V, f=1MHz		945		pF
Output Capacitance	C _{oss}	V _{DS} =-20V, f=1MHz		72		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =-20V, f=1MHz		60		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		12		ns
Rise Time	t _r	See specified Test Circuit.		65		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit.		80		ns
Fall Time	t _f	See specified Test Circuit.		38		ns
Total Gate Charge	Q _g	V _{DS} =-50V, V _{GS} =-10V, I _D =-8A		20		nC
Gate-to-Source Charge	Q _{gs}	V _{DS} =-50V, V _{GS} =-10V, I _D =-8A		3.8		nC
Gate-to-Drain"Miller"Charge	Q _{gd}	V _{DS} =-50V, V _{GS} =-10V, I _D =-8A		4.5		nC
Diode Forward Voltage	V _{SD}	I _S =-8A, V _{GS} =0		-0.92	-1.2	V

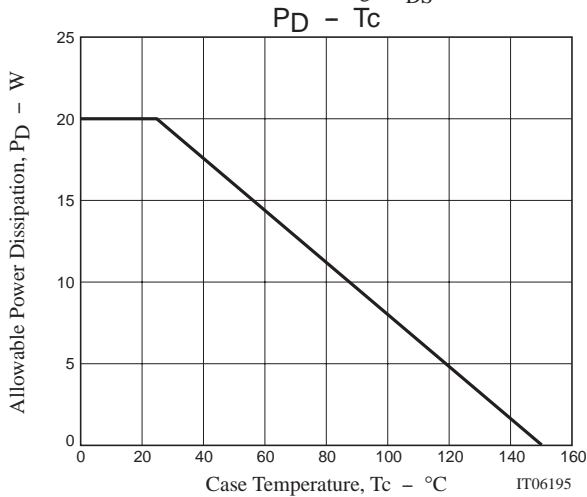
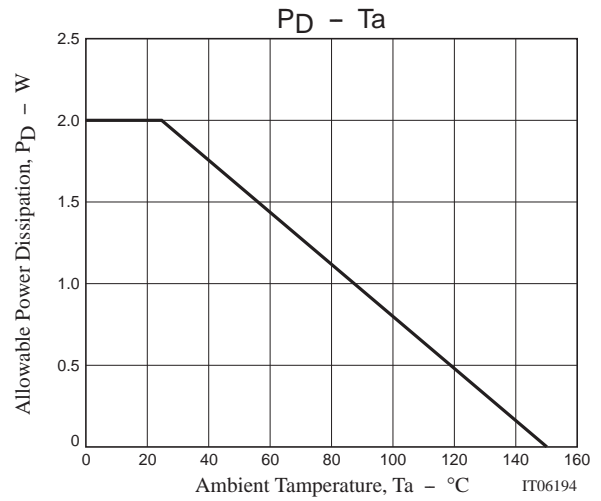
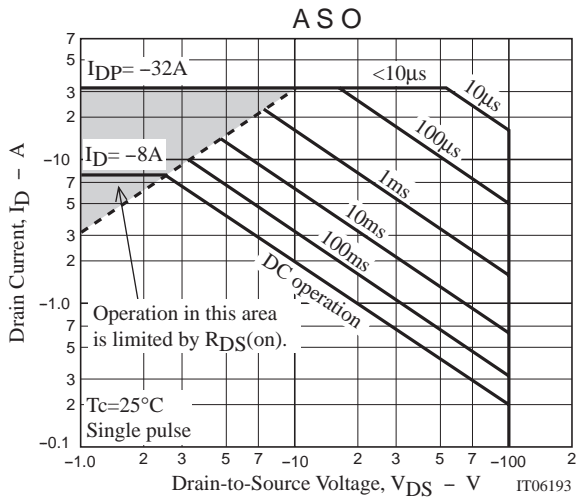
Switching Time Test Circuit



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