



SFT1341 — P-Channel Silicon MOSFET

General-Purpose Switching Device Applications

Features

- 1.8V drive.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-40	V
Gate-to-Source Voltage	V _{GSS}		±10	V
Drain Current (DC)	I _D		-10	A
Drain Current (PW≤10μs)	I _{DP}	PW≤10μs, duty cycles≤1%	-40	A
Allowable Power Dissipation	P _D		1.0	W
		T _c =25°C	15	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} =0V	-40			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-40V, V _{GS} =0V			-1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±8V, V _{DS} =0V			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-0.4		-1.4	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-5A	4.6	7.7		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-5A, V _{GS} =-4.5V		86	112	mΩ
	R _{DS(on)2}	I _D =-5A, V _{GS} =-2.5V		110	154	mΩ
	R _{DS(on)3}	I _D =-2.5A, V _{GS} =-1.8V		140	210	mΩ

Marking : T1341

Continued on next page.

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SFT1341

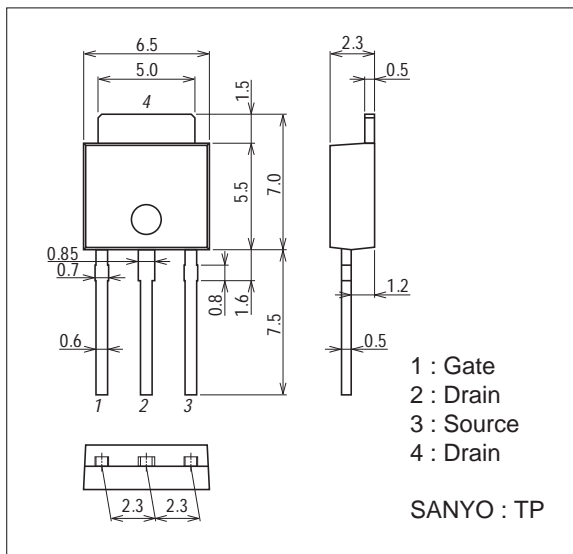
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	$V_{DS} = -20V, f = 1MHz$		650		pF
Output Capacitance	Coss	$V_{DS} = -20V, f = 1MHz$		65		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = -20V, f = 1MHz$		50		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		9.0		ns
Rise Time	t_r	See specified Test Circuit.		50		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		81		ns
Fall Time	t_f	See specified Test Circuit.		80		ns
Total Gate Charge	Qg	$V_{DS} = -20V, V_{GS} = -4.5V, I_D = -10A$		8.0		nC
Gate-to-Source Charge	Qgs	$V_{DS} = -20V, V_{GS} = -4.5V, I_D = -10A$		1.4		nC
Gate-to-Drain "Miller" Charge	Qgd	$V_{DS} = -20V, V_{GS} = -4.5V, I_D = -10A$		2.5		nC
Diode Forward Voltage	VSD	$I_S = -10A, V_{GS} = 0V$		-1.0	-1.5	V

Package Dimensions

unit : mm (typ)

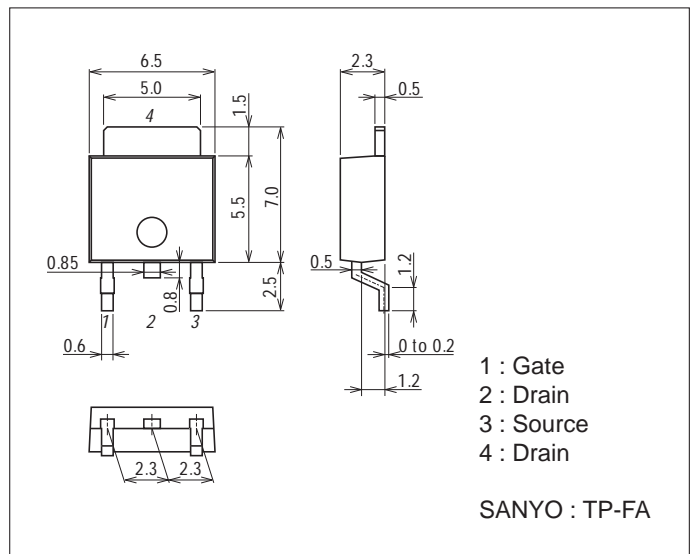
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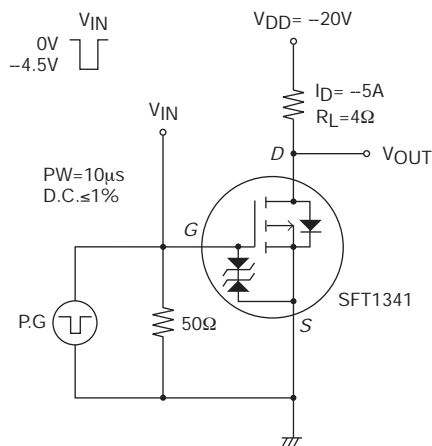
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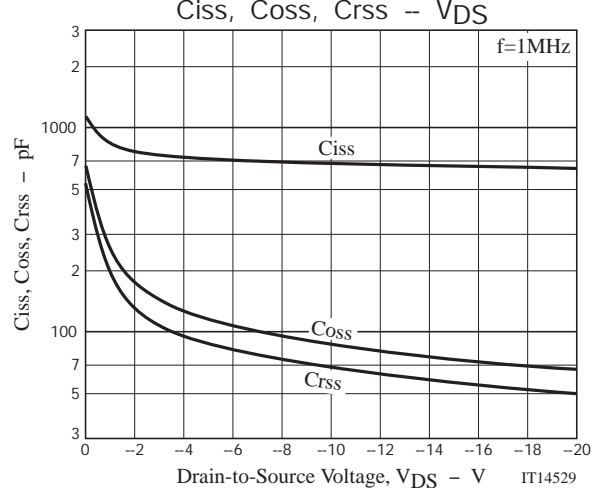
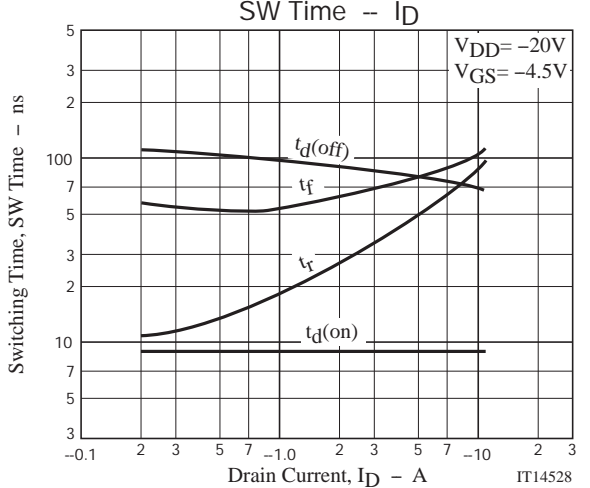
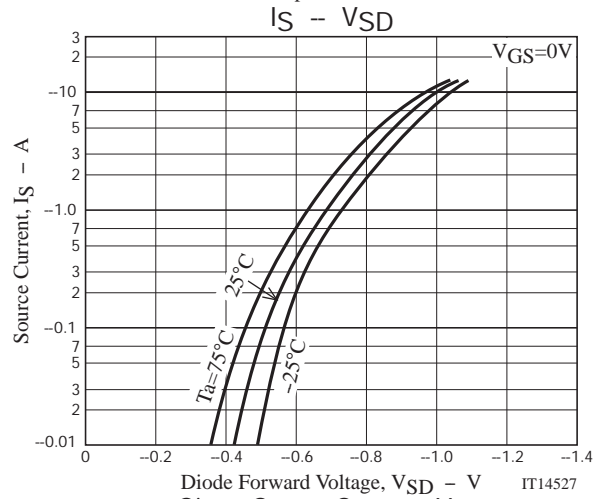
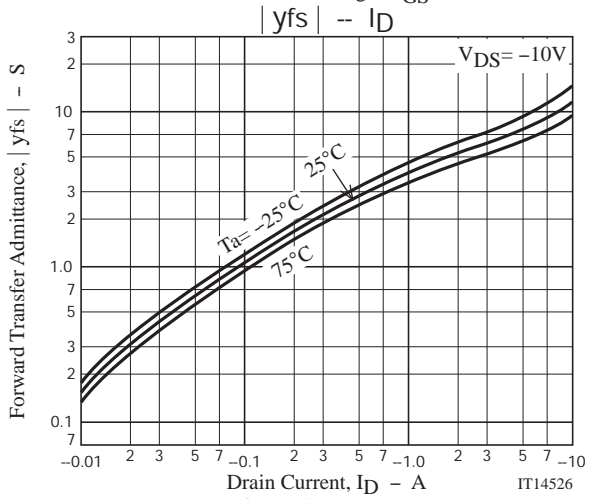
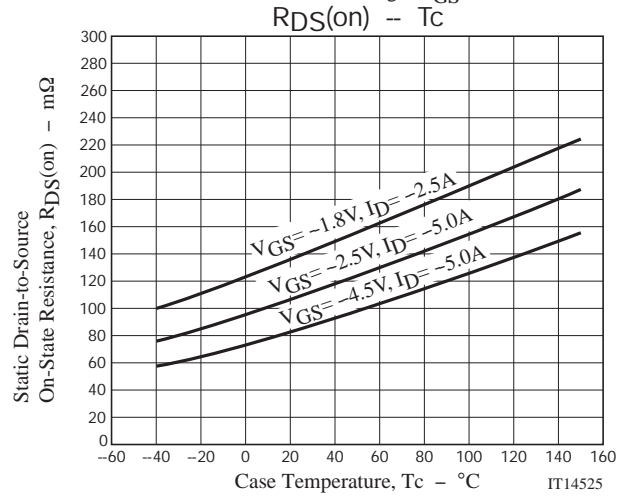
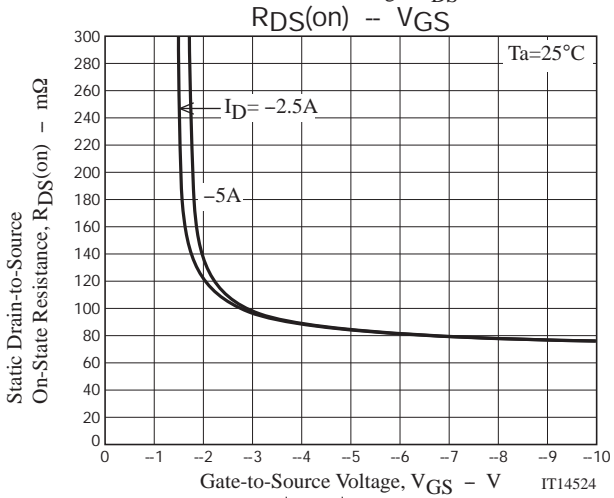
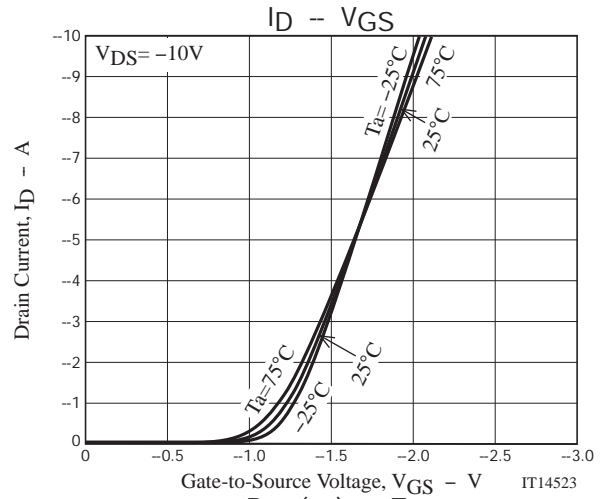
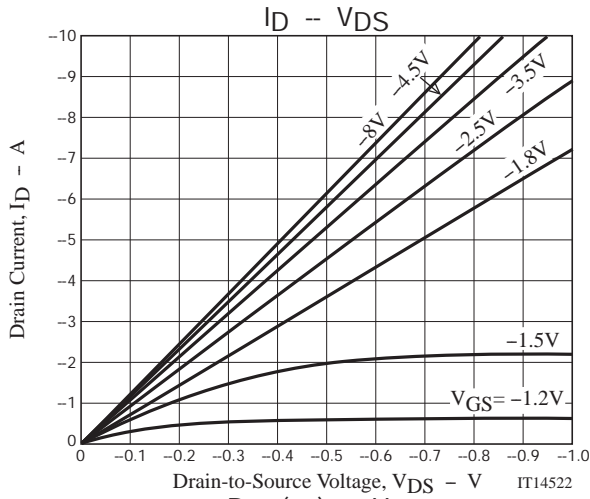
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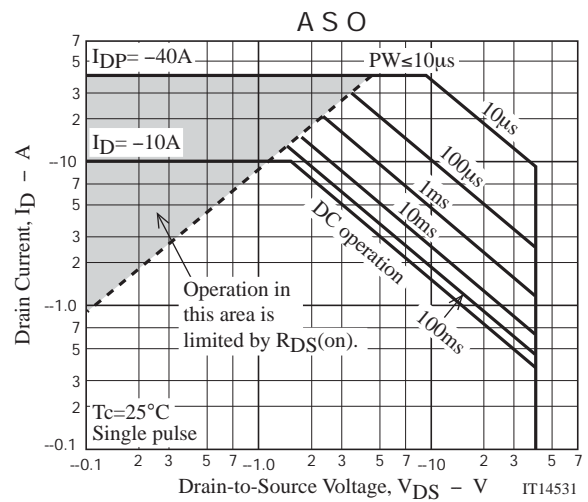
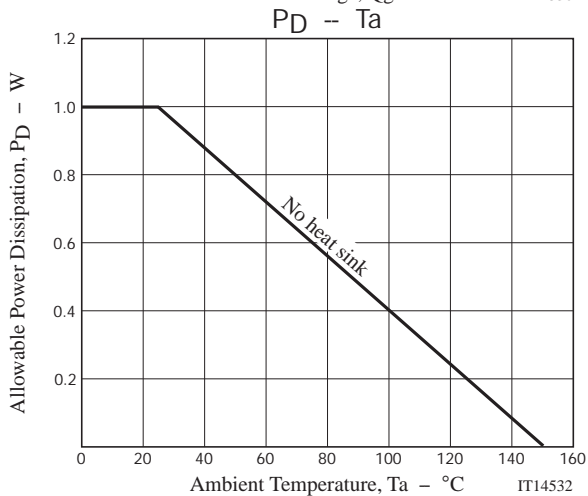
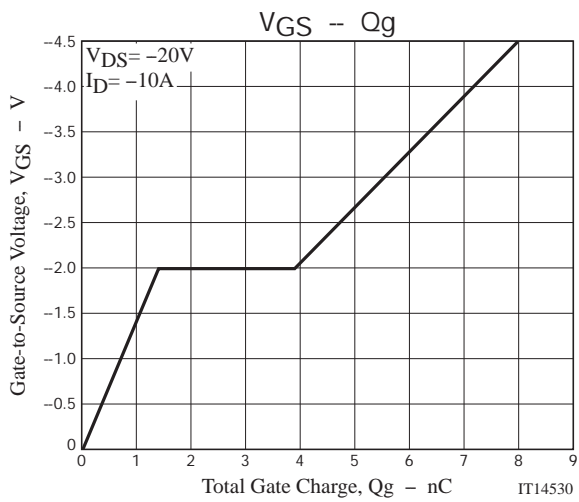
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Switching Time Test Circuit







Note on usage : Since the SFT1341 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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