SFT1341

Power MOSFET –40V, 112mΩ, –10A, Single P-Channel

Features

- Low On-Resistance
- Low Gate Charge
- ESD Diode-Protected Gate
- High Speed Switching
- Low Gate Drive Voltage
- Pb-free and RoHS Compliance

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter		Symbol	Value	Unit
Drain to Source Voltage		VDSS	-40	V
Gate to Source Voltage		VGSS	±10	V
Drain Current (DC)		ID	-10	А
Drain Current PW≤10μs, duty cycle≤1%		I _{DP}	-40	А
			1.0	W
Power Dissipation	Tc=25°C	PD	15	W
Junction Temperature		Tj	150	°C
Storage Temperature		Tstg	-55 to +150	°C

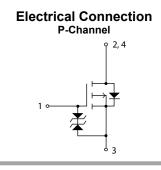
Thermal Resistance Ratings

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Parameter	Symbol	Value	Unit
Junction to Case Steady State	R _{θJC}	8.33	0000
Junction to Ambient *1	R _{θJA}	125	°C/W

Note : *1 Insertion mounted

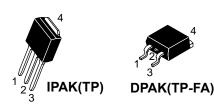
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

http://onsemi.com



Packing Type:TL





ORDERING INFORMATION

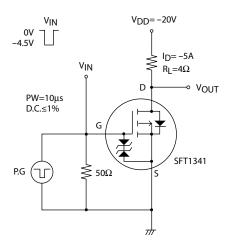
See detailed ordering and shipping information on page 6 of this data sheet.

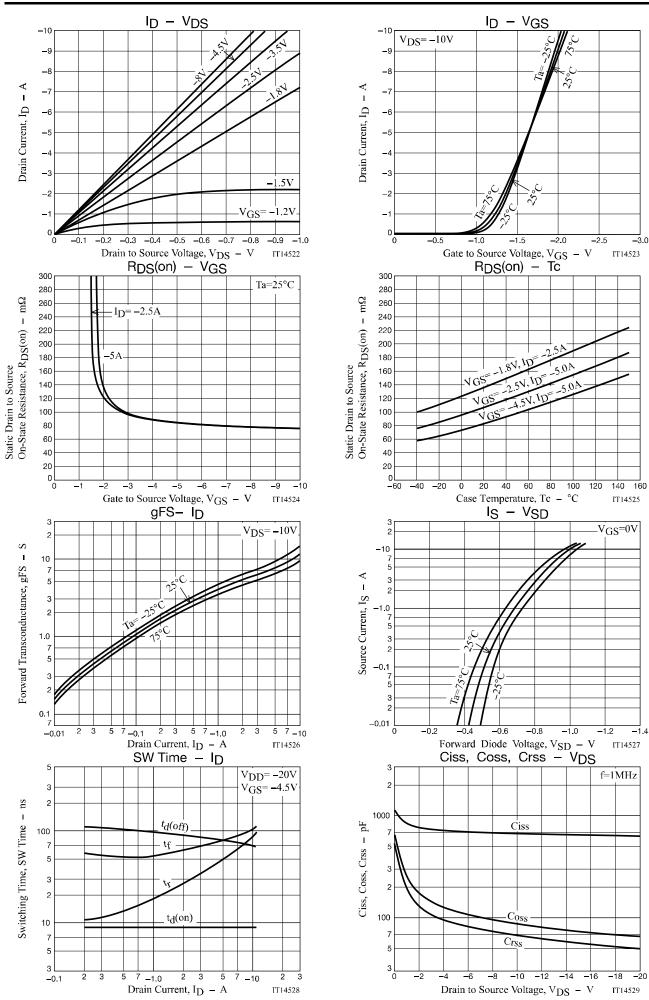
Electrical Characteristics at $Ta = 25^{\circ}C$

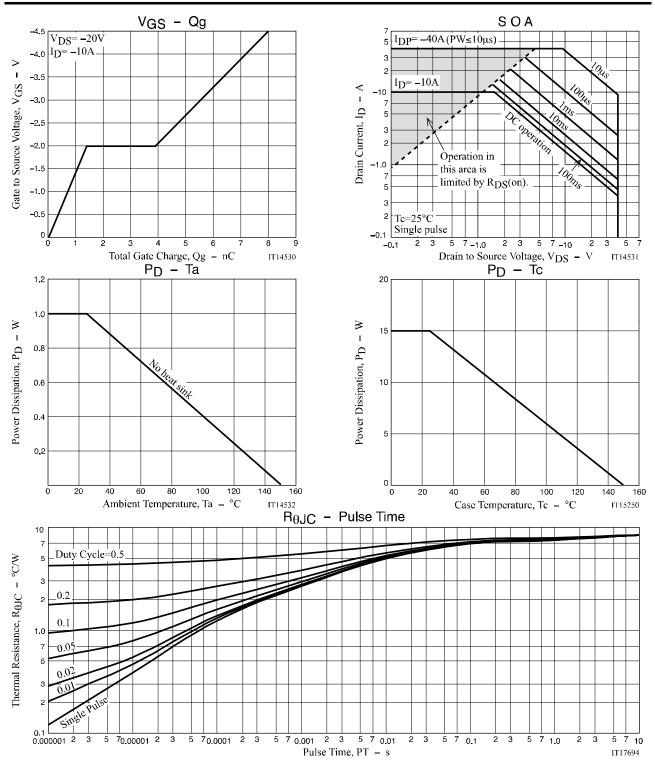
	0			Value		
Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source Breakdown Voltage	V(BR)DSS	I _D =-1mA, V _{GS} =0V	-40			V
Zero-Gate Voltage Drain Current	IDSS	V_{DS} = -40V, V_{GS} =0V			-1	μA
Gate to Source Leakage Current	IGSS	V _{GS} =±8V, V _{DS} =0V			±10	μΑ
Gate Threshold Voltage	VGS(th)	$V_{DS} = -10V, I_{D} = -1mA$	-0.4		-1.4	V
Forward Transconductance	9FS	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
Input Capacitance	Ciss			650		pF
Output Capacitance	Coss	V _{DS} = -20V, f=1MHz		65		pF
Reverse Transfer Capacitance	Crss			50		pF
Turn-ON Delay Time	t _d (on)			9.0		ns
Rise Time	tr			50		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit.		81		ns
Fall Time	tf			80		ns
Total Gate Charge	Qg			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	7		2.5		nC
Forward Diode Voltage	V _{SD}	I _S = –10A, V _{GS} =0V		-1.0	-1.5	V

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Switching Time Test Circuit







Package Dimensions SFT1341-TL-E/SFT1341-TL-W

DPAK/TP-FA

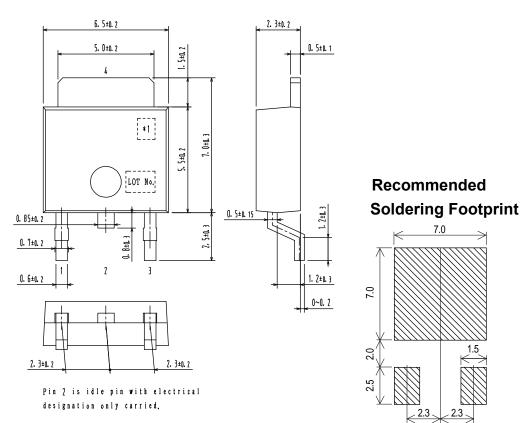
unit : mm





3:Source

4:Drain



*1:Lot indication

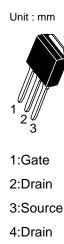
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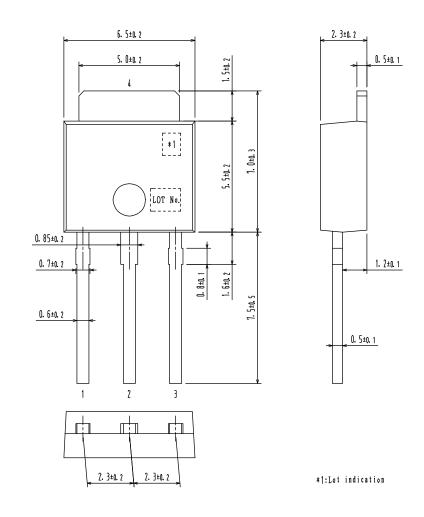
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Package Dimensions

SFT1341-E/ SFT1341-W

IPAK/TP





Ordering & Package Information

Device	Package	Shipping	Note
SFT1341-E	IPAK(TP)	500pcs. / bag	Pb-Free
SFT1341-W	SC-64 TO-251		Pb-Free and Halogen Free
SFT1341-TL-E	DPAK(TP-FA)	700pcs. / reel	Pb-Free
SFT1341-TL-W	SC-63 TO-252		Pb-Free and Halogen Free

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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