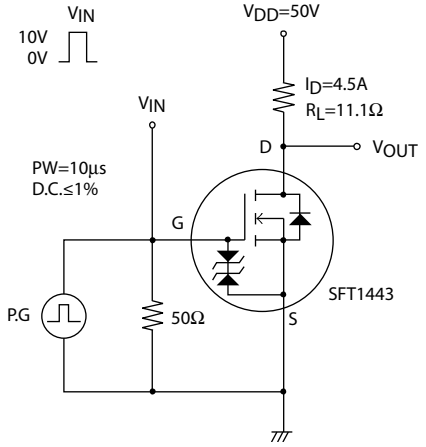
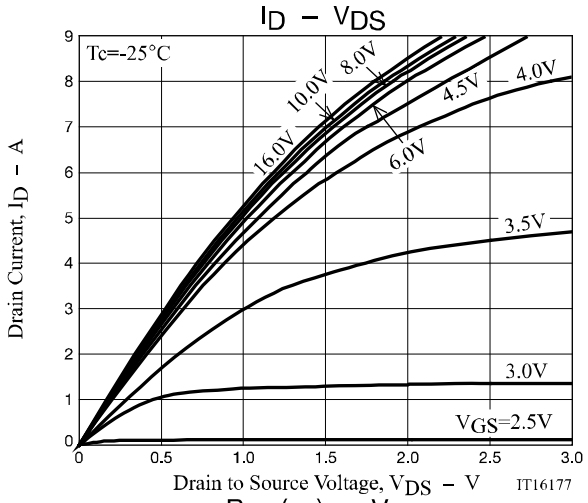
Electrical Characteristics at Ta = 25°C

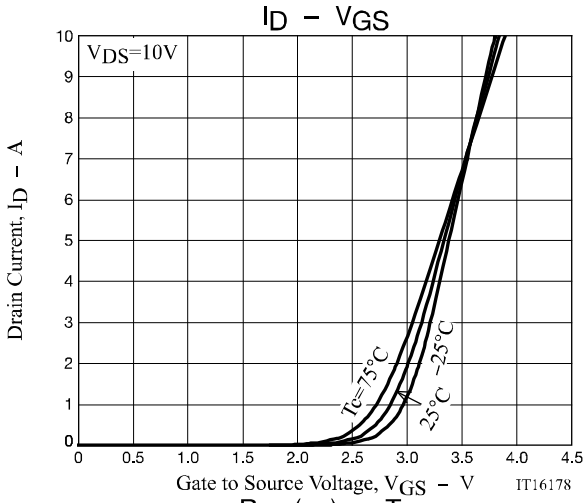
Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0V	100			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=100V, V_{GS}=0V			1	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±16V, V_{DS}=0V			±10	μA
Gate Threshold Voltage	$V_{GS}(th)$	V_{DS}=10V, I_D=1mA	1.5		2.6	V
Forward Transconductance	g_{FS}	V_{DS}=10V, I_D=4.5A		4		S
Static Drain to Source On-State Resistance	$R_{DS}(on)1$	I_D=3A, V_{GS}=10V		180	225	mΩ
	$R_{DS}(on)2$	I_D=1.5A, V_{GS}=4.5V		195	275	mΩ
	$R_{DS}(on)3$	I_D=1.5A, V_{GS}=4V		205	290	mΩ
Input Capacitance	Ciss	V_{DS}=20V, f=1MHz		490		pF
Output Capacitance	Coss			34		pF
Reverse Transfer Capacitance	Crss			19		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		8		ns
Rise Time	t_r			10		ns
Turn-OFF Delay Time	$t_d(off)$			34		ns
Fall Time	t_f			24		ns
Total Gate Charge	Qg	V_{DS}=50V, V_{GS}=10V, I_D=9A		9.8		nC
Gate to Source Charge	Qgs			1.8		nC
Gate to Drain “Miller” Charge	Qgd			1.6		nC
Forward Diode Voltage	V_{SD}	I_S=9A, V_{GS}=0V		1.03	1.2	V

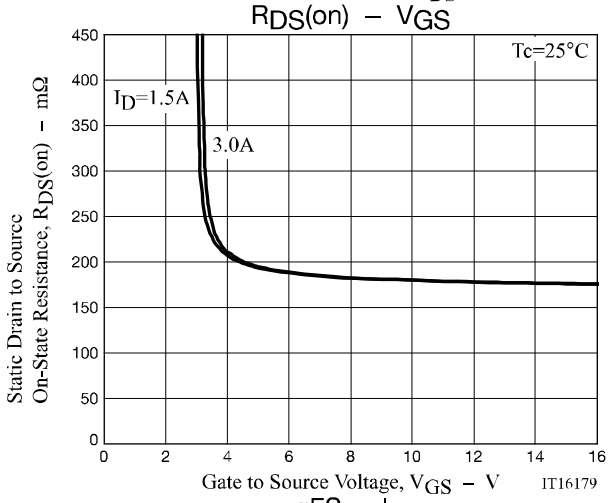
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

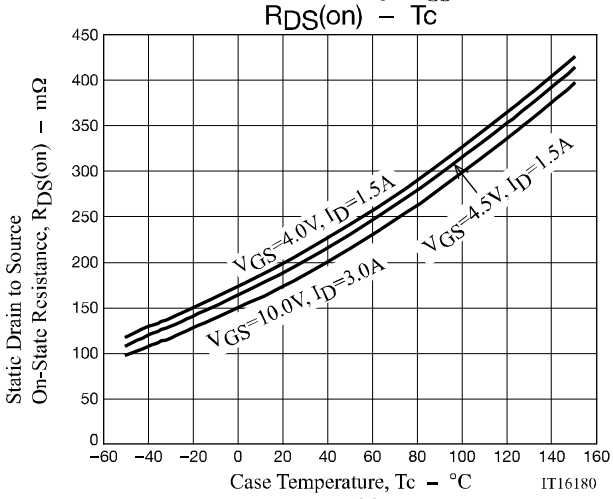
Switching Time Test Circuit

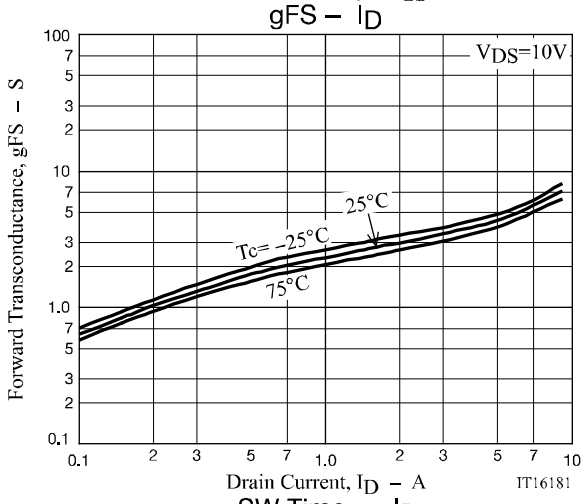


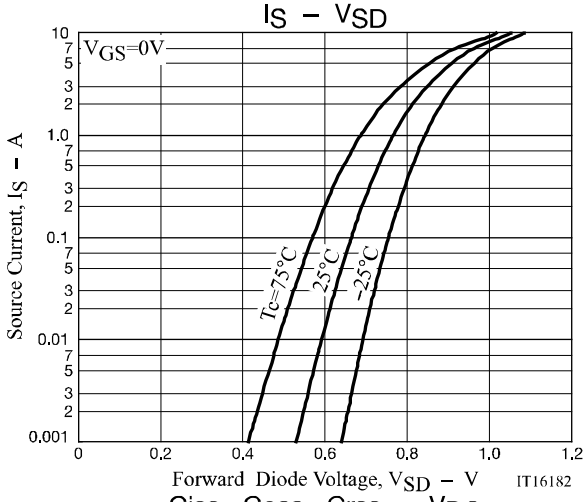


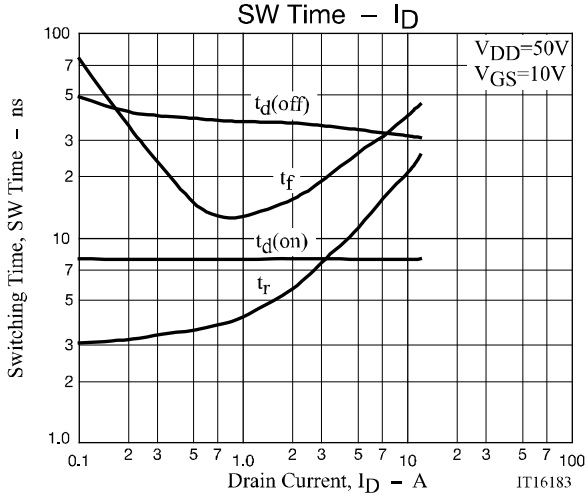


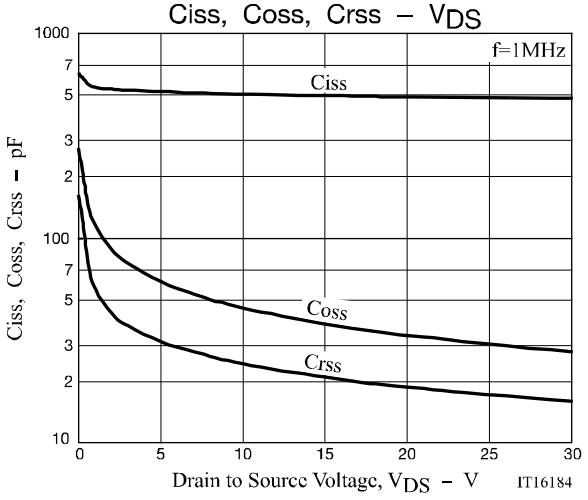


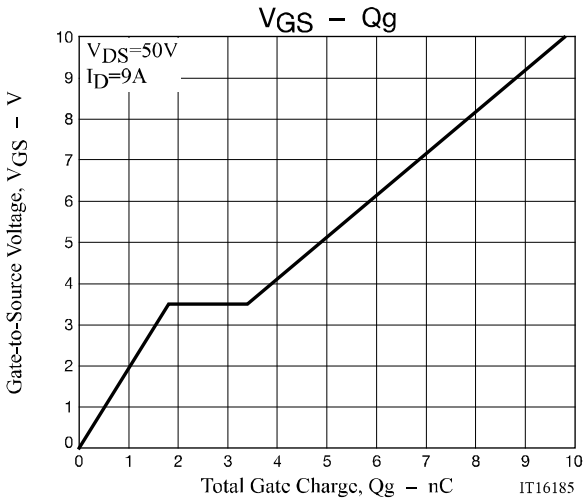


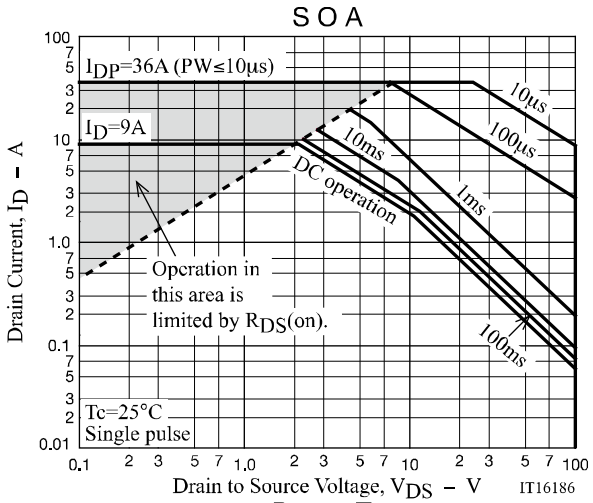


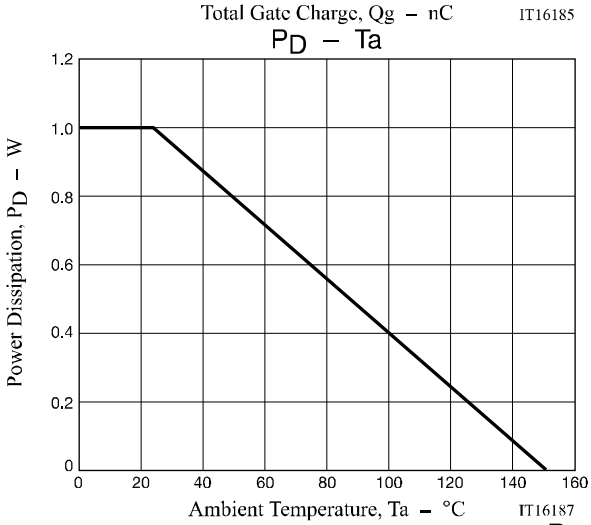


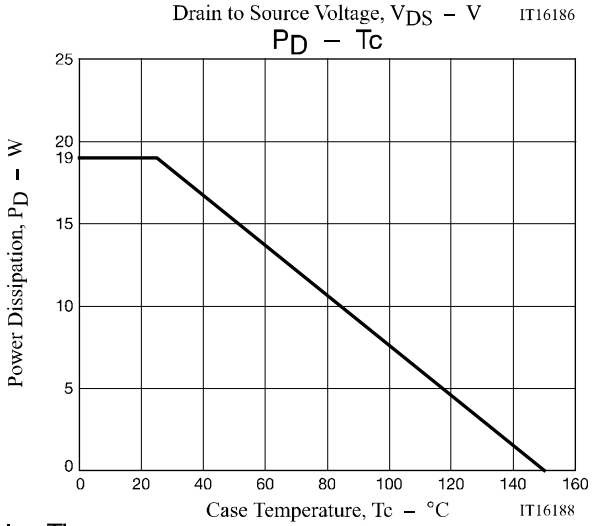


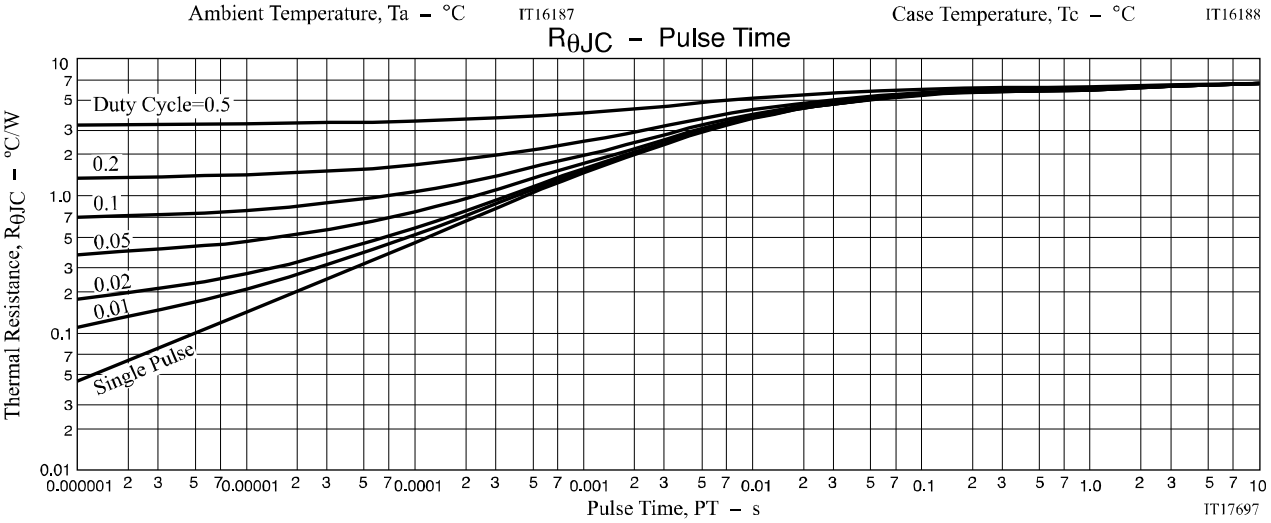










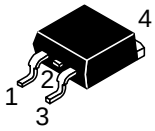


Package Dimensions

SFT1443-TL-H/ SFT1443-TL-W

DPAK/TP-FA

unit : mm

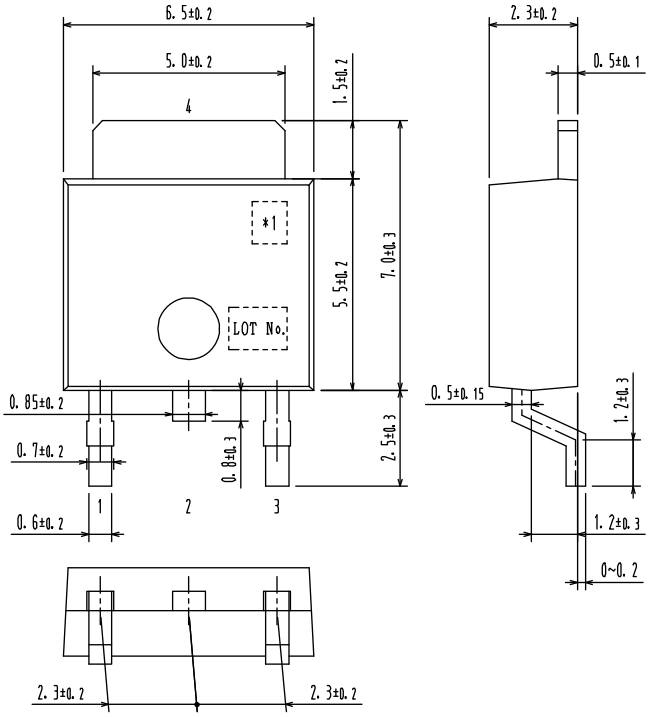


1:Gate

2:Drain

3:Source

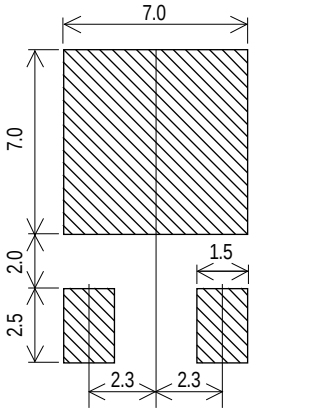
4:Drain



Pin 2 is idle pin with electrical designation only carried.

*1:Lot indication

Recommended Soldering Footprint

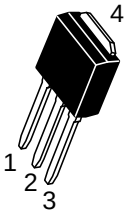


Package Dimensions

SFT1443-H/ SFT1443-W

IPAK/TP

Unit : mm

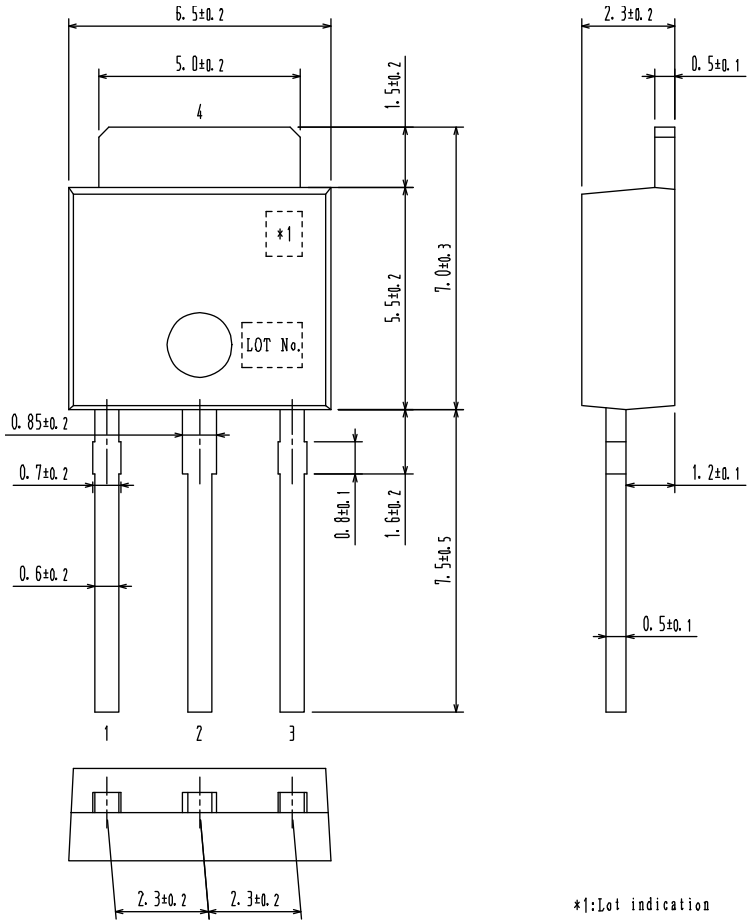


1:Gate

2:Drain

3:Source

4:Drain



Ordering & Package Information

Device	Package	Shipping	Note
SFT1443-H	IPAK(TP) SC-64,TO-251	500pcs. / bag	Pb-Free and Halogen Free
SFT1443-W			
SFT1443-TL-H	DPAK(TP-FA) SC-63,TO-252	700pcs. / reel	
SFT1443-TL-W			

Note on usage : Since the SFT1443 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.