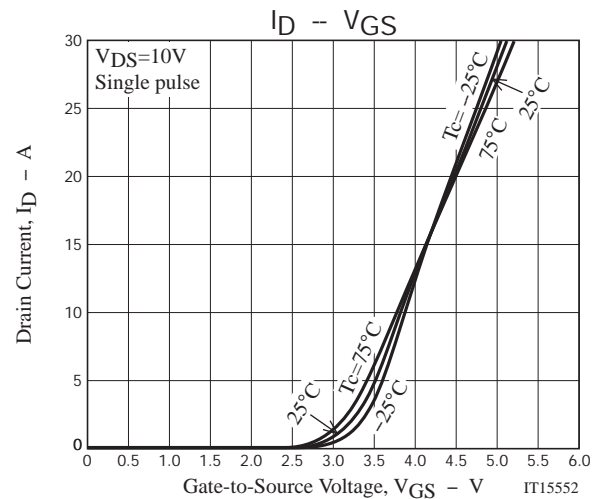
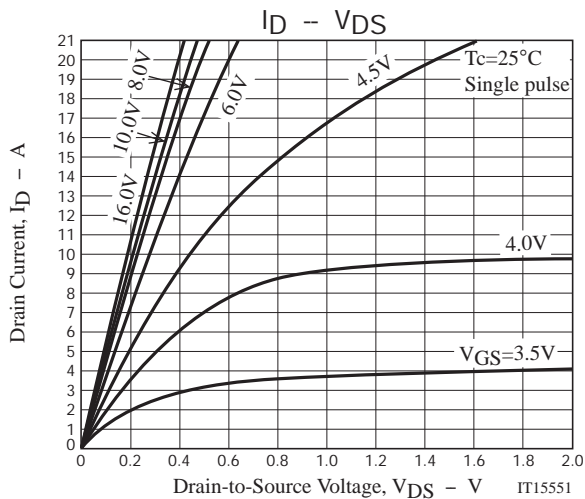
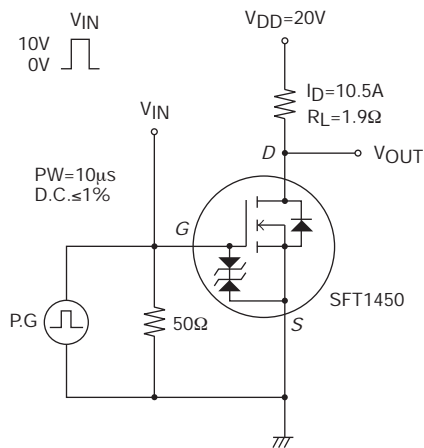
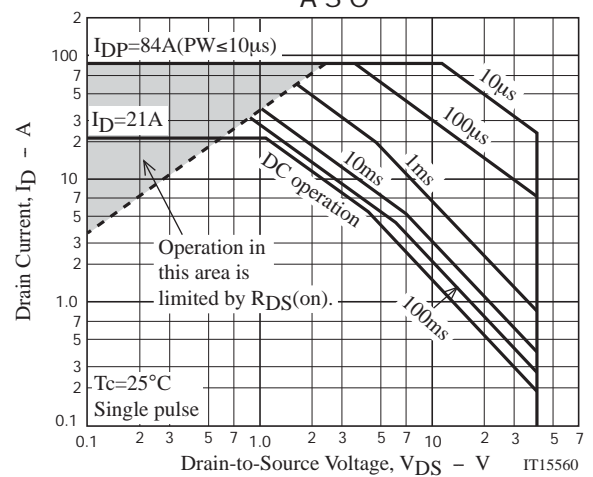
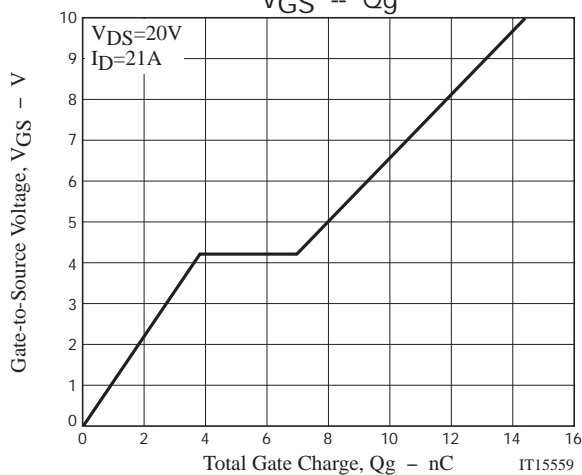
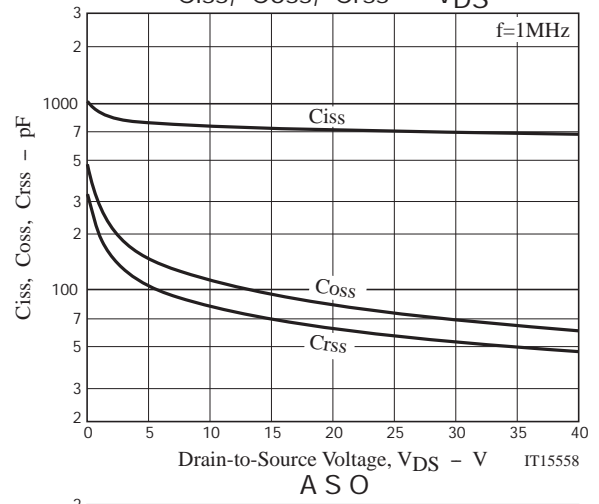
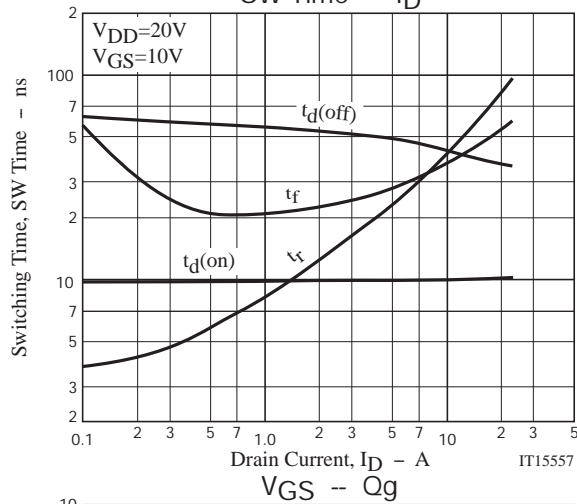
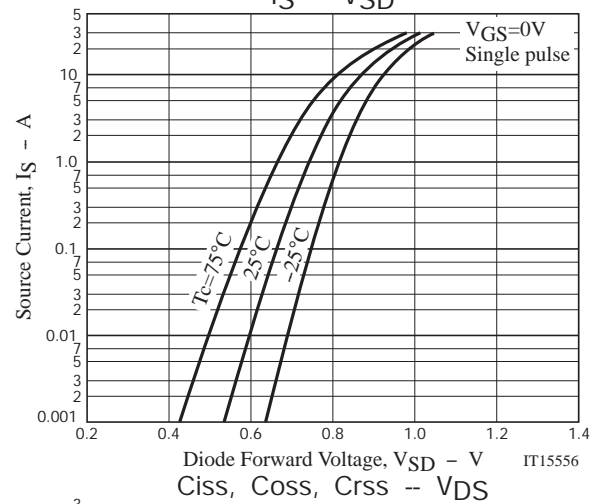
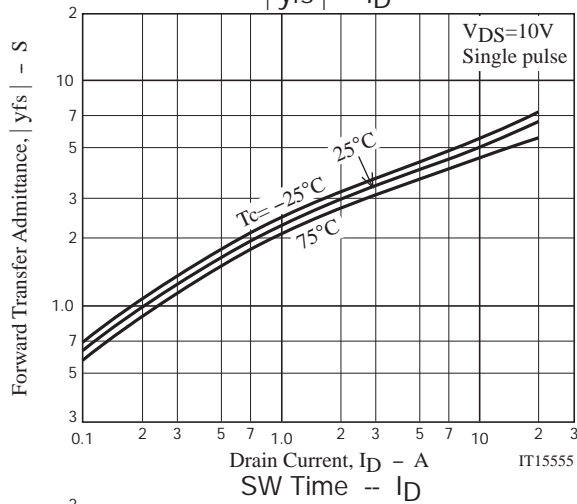
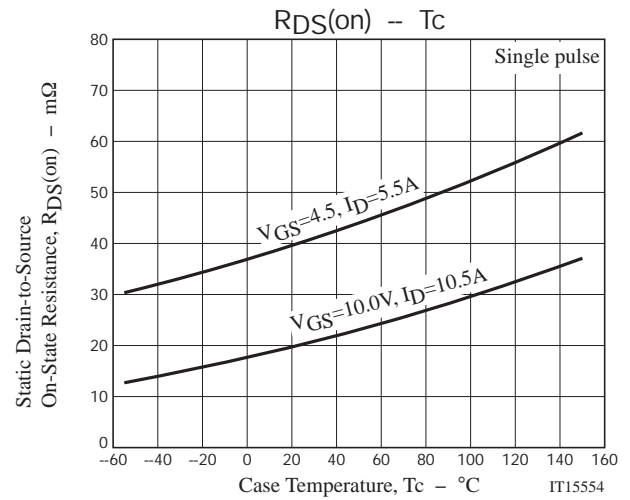
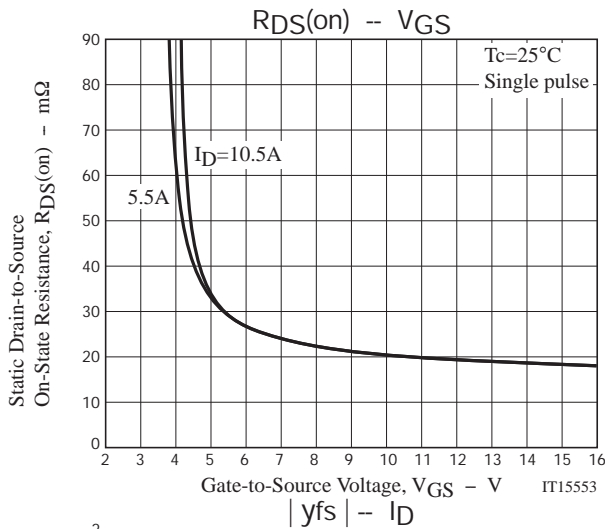


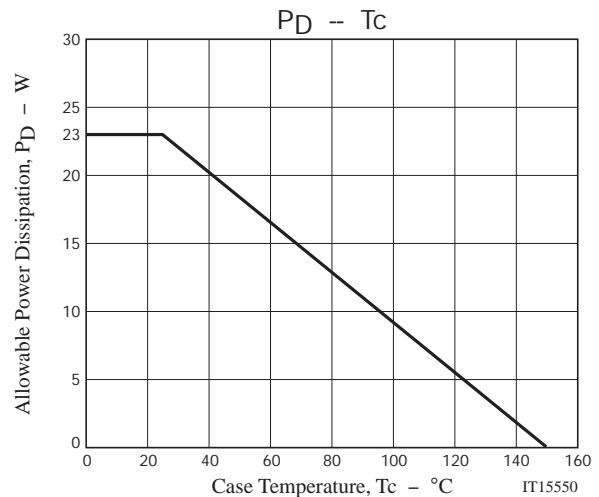
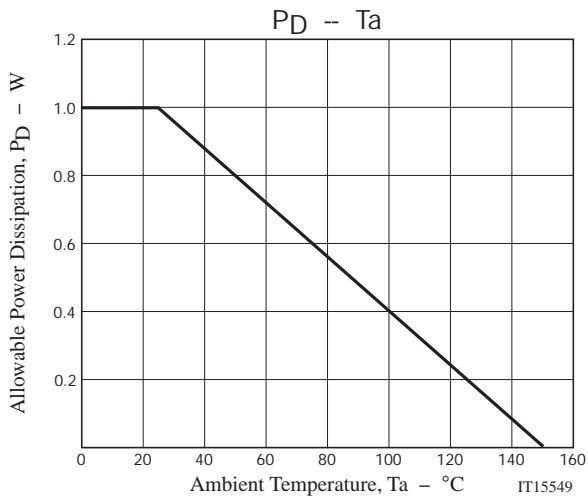
Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min.	typ.	max.	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1\text{mA}$, $V_{GS}=0\text{V}$	40			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=40\text{V}$, $V_{GS}=0\text{V}$			1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 16\text{V}$, $V_{DS}=0\text{V}$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}$, $I_D=1\text{mA}$	1.7		2.6	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10\text{V}$, $I_D=10.5\text{A}$		5.4		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=10.5\text{A}$, $V_{GS}=10\text{V}$		21	28	$\text{m}\Omega$
	$R_{DS(on)2}$	$I_D=5.5\text{A}$, $V_{GS}=4.5\text{V}$		40	56	$\text{m}\Omega$
Input Capacitance	C_{iss}	$V_{DS}=20\text{V}$, $f=1\text{MHz}$		715		pF
Output Capacitance	C_{oss}	$V_{DS}=20\text{V}$, $f=1\text{MHz}$		85		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20\text{V}$, $f=1\text{MHz}$		65		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		10		ns
Rise Time	t_r	See specified Test Circuit.		42		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		42		ns
Fall Time	t_f	See specified Test Circuit.		38		ns
Total Gate Charge	Q_g	$V_{DS}=20\text{V}$, $V_{GS}=10\text{V}$, $I_D=21\text{A}$		14.4		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS}=20\text{V}$, $V_{GS}=10\text{V}$, $I_D=21\text{A}$		3.8		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS}=20\text{V}$, $V_{GS}=10\text{V}$, $I_D=21\text{A}$		3.1		nC
Diode Forward Voltage	V_{SD}	$I_S=21\text{A}$, $V_{GS}=0\text{V}$		0.96	1.2	V

Switching Time Test Circuit







Note on usage : Since the SFT1450 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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