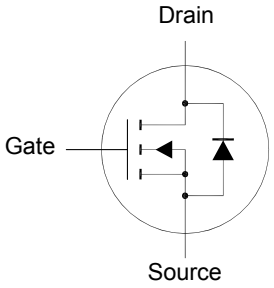
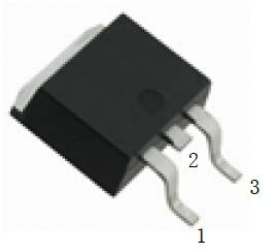
SFTN3910R

N-Channel Enhancement Mode MOSFET





1.Gate 2.Drain 3.Source

TO-252 Plastic Package

Absolute Maximum Ratings

Parameter		Symbol	Value	Unit
Drain-Source Voltage		V_{DS}	30	V
Gate-Source Voltage		V_{GS}	±20	V
Drain Current	T_C = 25℃ T_C = 100℃	I_D	45 28	A
Peak Drain Current [1)]		I_{DM}	180	A
Avalanche energy,single pulse [2)]		E_{AS}	13	mJ
Avalanche current, single pulse [2)]		I_{AS}	16	A
Power Dissipation	T_C = 25℃	P_D	33	W
Operating Junction Temperature Range		T_J	- 55 to 150	℃
Storage Temperature Range		T_{stg}	- 55 to 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Juntion to Ambient	$R_{\theta JA}$	62	℃/W
Thermal Resistance from Juntion to Case	$R_{\theta JC}$	3.8	℃/W

[1)] Repetitive Rating : Pulsed width limited by maximum junction temperature.

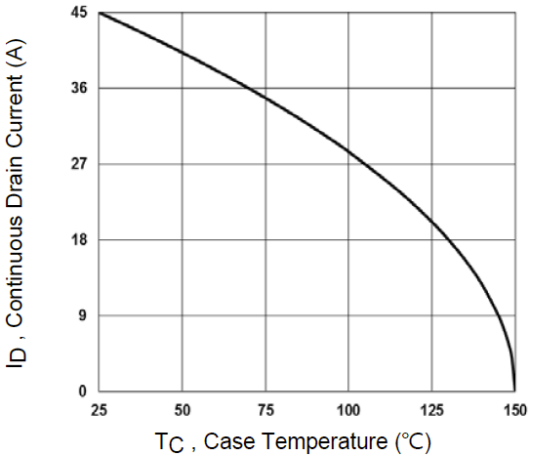
[2)] V_{DD}=25V, V_{GS}=10V, L=0.1mH, I_{AS}=16A,R_G=25Ω, Starting T_J=25°C.

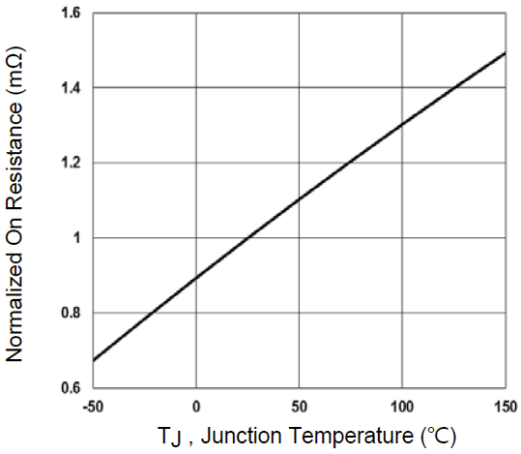
Winning Team
互創國際

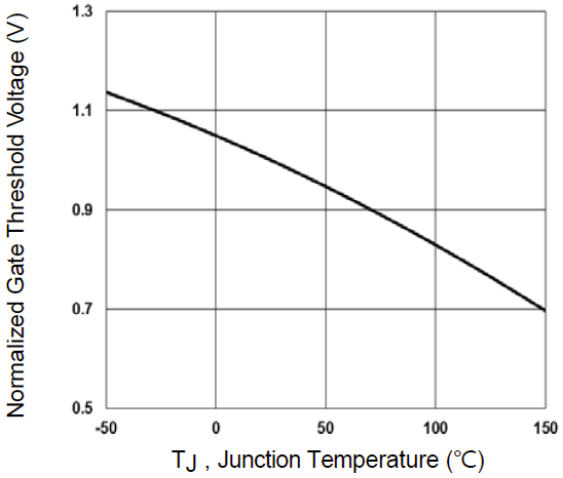
Dated: 07/12/2017 PT

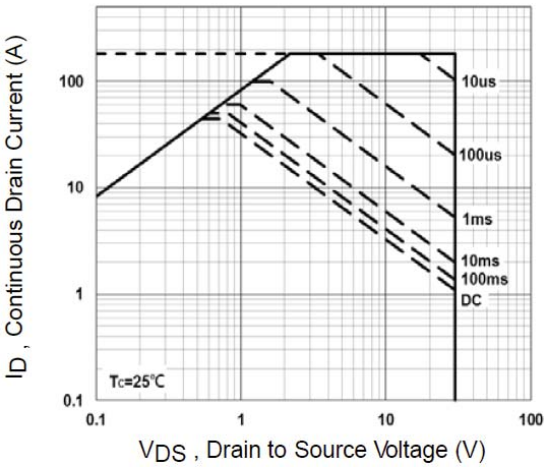
Characteristics at T_J = 25℃ unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage at I_D = 250 μA	BV_{DSS}	30	-	-	V
Gate-Source Threshold Voltage at V_{GS} = V_{DS} , I_D = 250 μA	$V_{GS(th)}$	1.2	-	2.5	V
Drain-Source Leakage Current at V_{DS} = 30 V at V_{DS} = 30 V ,T_j = 125℃	I_{DSS}	- -	- -	1 10	μA
Gate Leakage Current at V_{GS} = ± 20 V	I_{GSS}	-	-	±100	nA
Drain-Source On-State Resistance at V_{GS} = 10 V, I_D = 10 A at V_{GS} = 4.5 V, I_D = 5 A	$R_{DS(on)}$	-	-	12 18	mΩ
Forward Transconductance at V_{DS} = 10 V, I_D = 3 A	$\lvert g_{FS} \rvert$	-	6.4	-	S
Diode Forward Voltage at I_S = 1 A	V_{SD}	-	-	1	V
Input Capacitance at V_{GS} = 0 V, V_{DS} = 25 V, f = 1 MHz	C_{iss}	-	-	900	pF
Output Capacitance at V_{GS} = 0 V, V_{DS} = 25 V, f = 1 MHz	C_{oss}	-	-	125	pF
Reverse Transfer Capacitance at V_{GS} = 0 V, V_{DS} = 25 V, f = 1 MHz	C_{rss}	-	-	90	pF
Turn-On Delay Time at V_{GS} = 10 V, V_{DD} = 15 V, I_D = 1 A, R_G = 6 Ω	$t_{d(on)}$	-	-	7	ns
Turn-On Rise Time at V_{GS} = 10 V, V_{DD} = 15 V, I_D = 1 A, R_G = 6 Ω	t_r	-	-	19	ns
Turn-Off Delay Time at V_{GS} = 10 V, V_{DD} = 15 V, I_D = 1 A, R_G = 6 Ω	$t_{d(off)}$	-	-	42	ns
Turn-Off Fall Time at V_{GS} = 10 V, V_{DD} = 15 V, I_D = 1 A, R_G = 6 Ω	t_f	-	-	13	ns





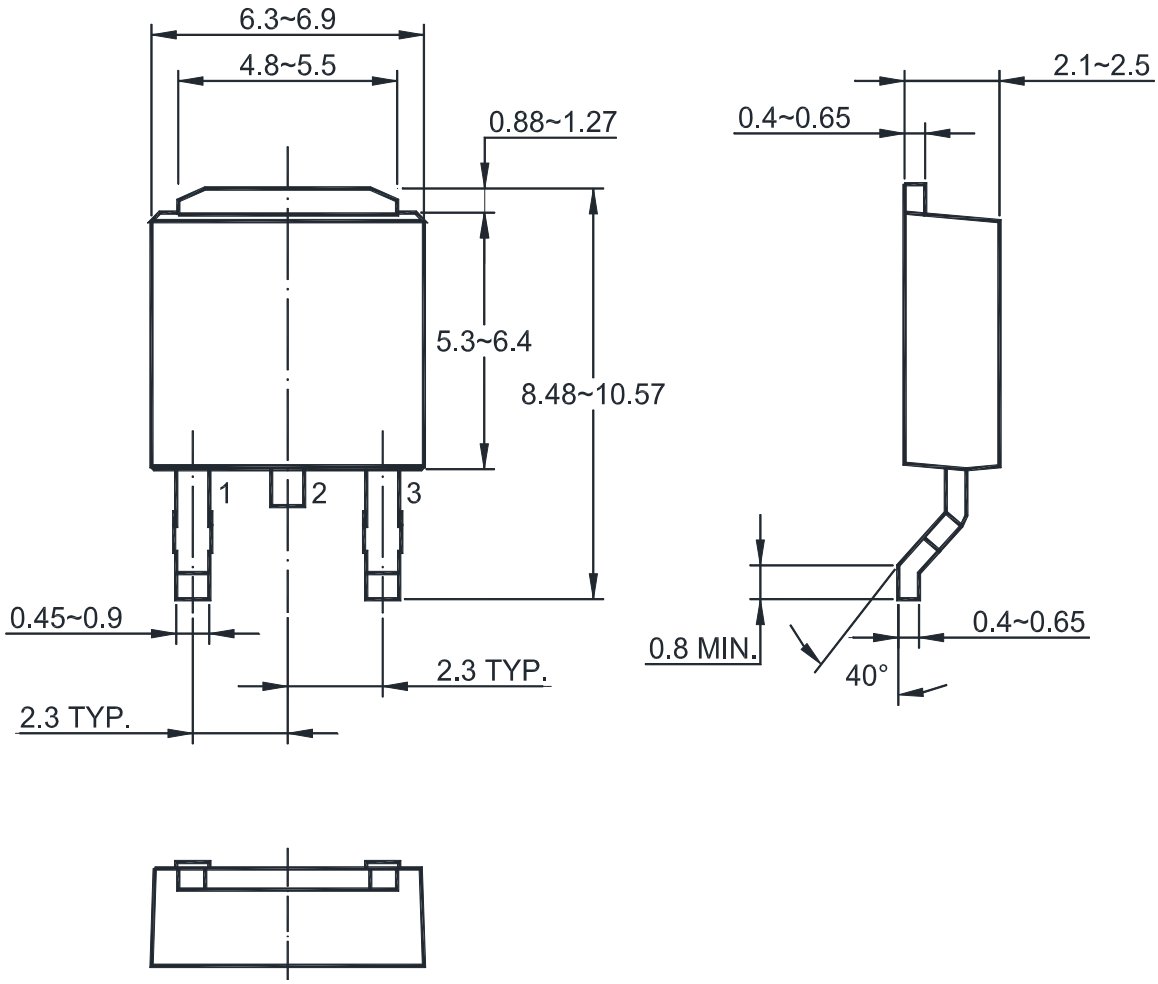




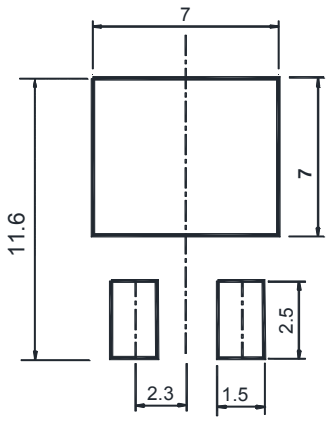
Winning Team
互創國際

Dated: 07/12/2017 PT

TO-252 PACKAGE OUTLINE



Recommended Soldering Footprint



Winning Team
互創國際

Dated: 07/12/2017 PT