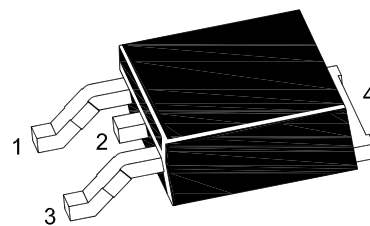
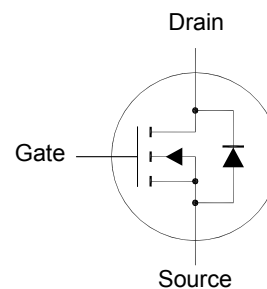


SFTN0470R

N-Channel Enhancement Mode MOSFET



1. Gate 2. Drain 3. Source 4. Drain
TO-252 Plastic Package

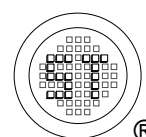


Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	700	V
Gate-Source Voltage	V_{GS}	± 30	V
Drain Current	I_D	$T_C = 25^\circ\text{C}$ 4	A
		$T_C = 100^\circ\text{C}$ 2.5	
Peak Drain Current	I_{DM}	12	A
Power Dissipation	P_D	$T_C = 25^\circ\text{C}$ 28	W
Operating Junction and Storage Temperature Range	T_J, T_{stg}	- 55 to + 150	$^\circ\text{C}$

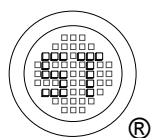
Thermal Characteristics

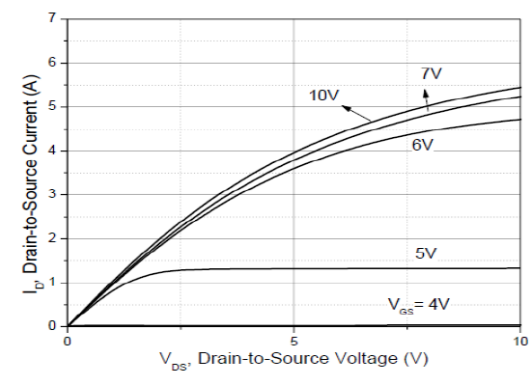
Parameter	Symbol	Max.	Unit
Maximum Thermal Resistance from Junction to Case	$R_{\theta JC}$	4.4	$^\circ\text{C/W}$
Maximum Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	110	$^\circ\text{C/W}$



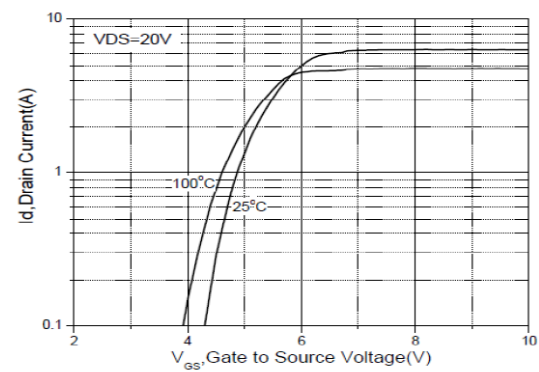
Characteristics at $T_J = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage at $I_D = 250\ \mu\text{A}$	BV_{DSS}	700	-	-	V
Drain-Source Leakage Current at $V_{DS} = 700\ \text{V}$ at $V_{DS} = 560\ \text{V}$, $T_J = 125^\circ\text{C}$	I_{DSS}	- -	- -	10 100	μA
Gate Leakage Current at $V_{GS} = \pm 30\ \text{V}$	I_{GSS}	-	-	± 100	nA
Gate-Source Threshold Voltage at $V_{DS} = V_{GS}$, $I_D = 250\ \mu\text{A}$	$V_{GS(th)}$	2	-	4	V
Drain-Source On-State Resistance at $V_{GS} = 10\ \text{V}$, $I_D = 2\ \text{A}$	$R_{DS(on)}$	-	-	1.5	Ω
Diode Forward Voltage at $I_S = 4\ \text{A}$, $V_{GS} = 0\ \text{V}$	V_{SD}	-	-	1.3	V
Maximun Body-Diode Continuous Current	I_S	-	-	4	A
Input Capacitance at $V_{GS} = 0\ \text{V}$, $V_{DS} = 50\ \text{V}$, $f = 1\ \text{MHz}$	C_{iss}	-	-	380	pF
Output Capacitance at $V_{GS} = 0\ \text{V}$, $V_{DS} = 50\ \text{V}$, $f = 1\ \text{MHz}$	C_{oss}	-	-	33	pF
Reverse Transfer Capacitance at $V_{GS} = 0\ \text{V}$, $V_{DS} = 50\ \text{V}$, $f = 1\ \text{MHz}$	C_{rss}	-	-	6.5	pF
Turn-On Delay Time at $I_D = 4\ \text{A}$, $V_{DS} = 350\ \text{V}$, $R_G = 25\ \Omega$	$t_{d(on)}$	-	-	80	ns
Turn-On Rise Time at $I_D = 4\ \text{A}$, $V_{DS} = 350\ \text{V}$, $R_G = 25\ \Omega$	t_r	-	-	50	ns
Turn-Off Delay Time at $I_D = 4\ \text{A}$, $V_{DS} = 350\ \text{V}$, $R_G = 25\ \Omega$	$t_{d(off)}$	-	-	110	ns
Turn-Off Fall Time at $I_D = 4\ \text{A}$, $V_{DS} = 350\ \text{V}$, $R_G = 25\ \Omega$	t_f	-	-	50	ns

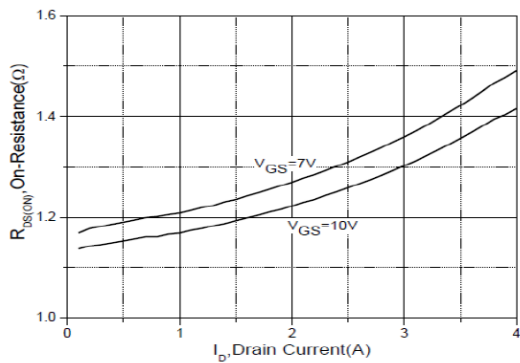




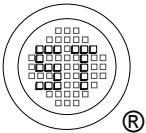
On Region Characteristics



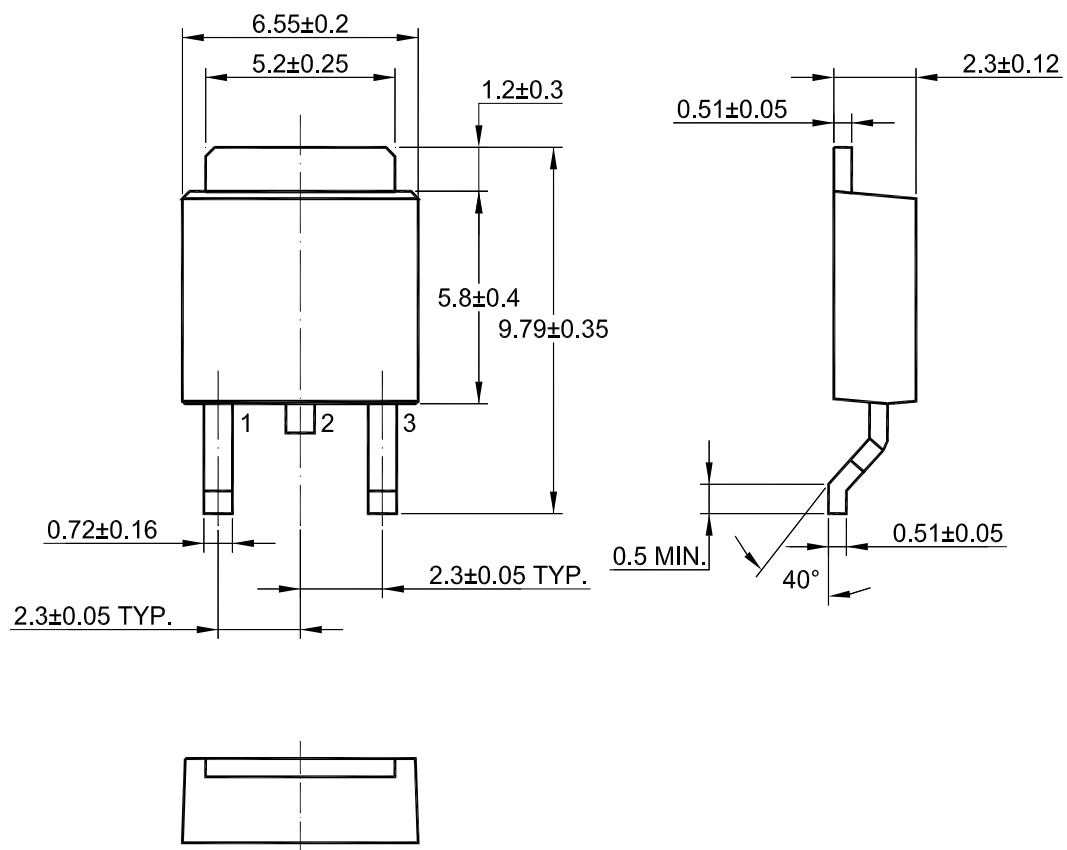
Transfer Characteristics



On Resistance Variation vs Drain Current and Gate Voltage



TO-252 PACKAGE OUTLINE



Dimensions in mm

