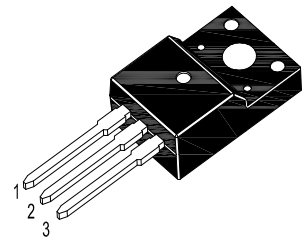
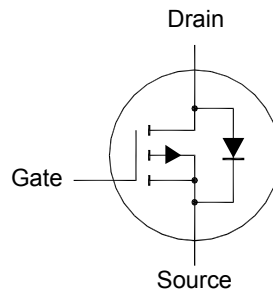


SFTP652

P-Channel Enhancement Mode MOSFET



TO-220F Plastic Package
1.Gate 2.Drain 3.Source

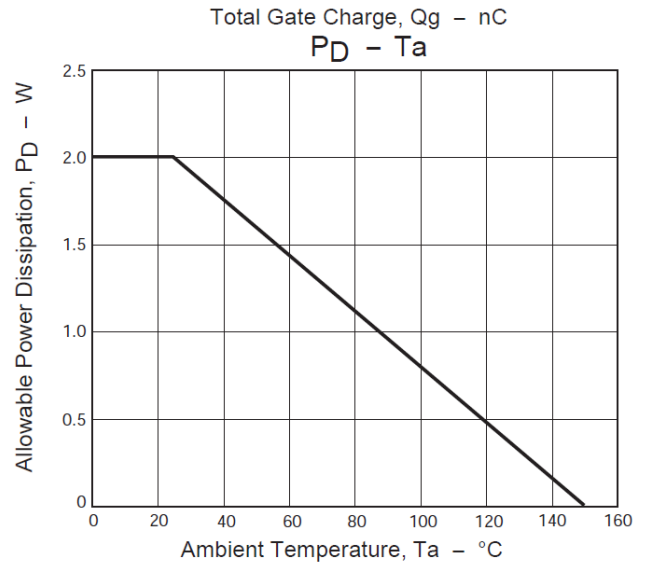
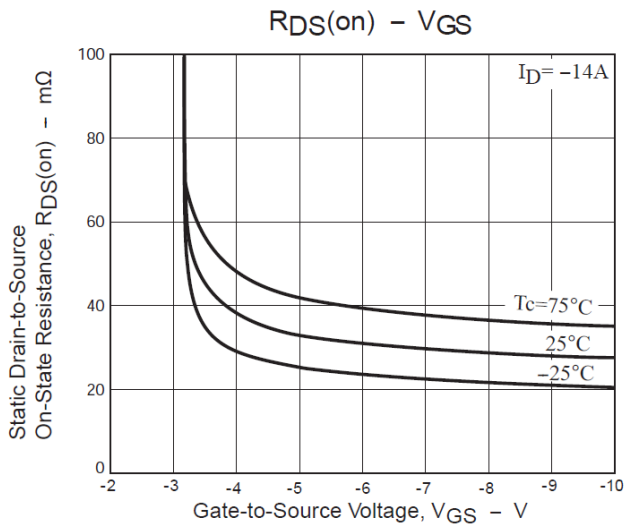
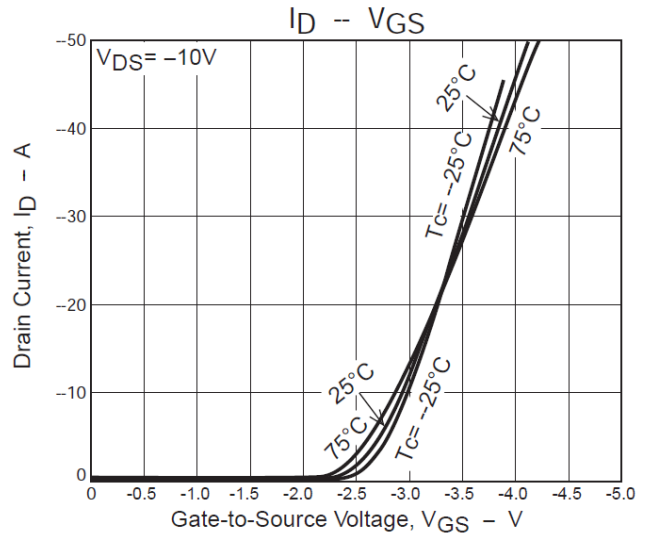
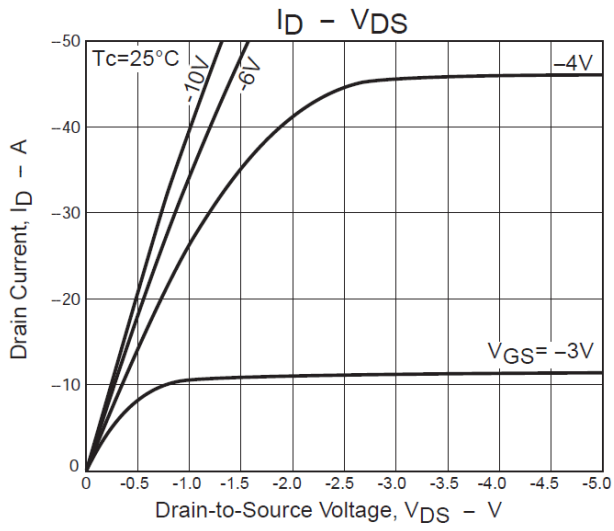
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$-V_{DS}$	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current	$-I_D$	28	A
Peak Drain Current	$-I_{DM}$	112	A
Power Dissipation $T_C = 25^\circ\text{C}$	P_D	2 30	W
Operating Junction and Storage Temperature Range	T_J, T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage at $-I_D = 1\text{ mA}$	$-BV_{DSS}$	60	-	-	V
Zero Gate Voltage Drain Current at $-V_{DS} = 60\text{ V}$	$-I_{DSS}$	-	-	1	μA
Gate Leakage Current at $V_{GS} = \pm 16\text{ V}$	I_{GSS}	-	-	± 10	μA
Cutoff Voltage at $V_{DS} = 10\text{ V}$, $-I_D = 1\text{ mA}$	$-V_{GS(off)}$	1.2	-	2.6	V
Drain-Source On-State Resistance at $-V_{GS} = 10\text{ V}$, $-I_D = 14\text{ A}$ at $-V_{GS} = 4\text{ V}$, $-I_D = 14\text{ A}$	$R_{DS(on)}$	-	-	38 55.5	m Ω
Forward Transconductance at $-V_{DS} = 10\text{ V}$, $-I_D = 14\text{ A}$	y_{FS}	18	-	-	S
Diode Forward Voltage at $-I_S = 28\text{ A}$, $V_{GS} = 0\text{ V}$	$-V_{SD}$	-	-	1.2	V
Maximum Body-Diode Continuous Current	$-I_S$	-	-	28	A
Input Capacitance at $V_{GS} = 0\text{ V}$, $-V_{DS} = 20\text{ V}$, $f = 1\text{ MHz}$	C_{iss}	-	4360	-	pF
Output Capacitance at $V_{GS} = 0\text{ V}$, $-V_{DS} = 20\text{ V}$, $f = 1\text{ MHz}$	C_{oss}	-	470	-	pF
Reverse Transfer Capacitance at $V_{GS} = 0\text{ V}$, $-V_{DS} = 20\text{ V}$, $f = 1\text{ MHz}$	C_{rSS}	-	335	-	pF
Turn-On Delay Time at $-I_D = 14\text{ A}$, $R_L = 2.1\ \Omega$, $-V_{DD} = 30\text{ V}$, $-V_{GS} = 10\text{ V}$	$t_{d(on)}$	-	33	-	ns
Turn-On Rise Time at $-I_D = 14\text{ A}$, $R_L = 2.1\ \Omega$, $-V_{DD} = 30\text{ V}$, $-V_{GS} = 10\text{ V}$	t_r	-	210	-	ns
Turn-Off Delay Time at $-I_D = 14\text{ A}$, $R_L = 2.1\ \Omega$, $-V_{DD} = 30\text{ V}$, $-V_{GS} = 10\text{ V}$	$t_{d(off)}$	-	310	-	ns
Turn-Off Fall Time at $-I_D = 14\text{ A}$, $R_L = 2.1\ \Omega$, $-V_{DD} = 30\text{ V}$, $-V_{GS} = 10\text{ V}$	t_f	-	180	-	ns



TO-220F PACKAGE OUTLINE

