

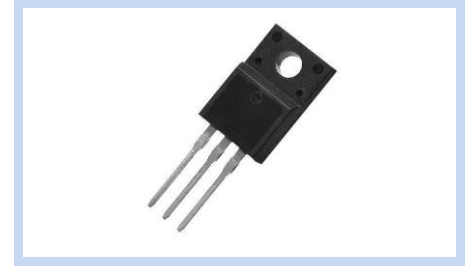
# MOSFET TO220F Package

MFT-T22F series

MERITEK

## FEATURE

- Operating and Storage Temperature: -55°C ~ +150°C
- Fast Switching Characteristics
- Improved dv/dt Capability



## PART NUMBERING SYSTEM

**MFT** **20** **N** **20** **T22FS**  
 (1) (2) (3) (4) (5)

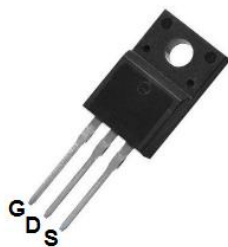


No	Item	Code	Part Description	Series Reference
(1)	Meritek Series	MFT	Meritek MOSFET Series	Leaded Type
(2)	Voltage Rating	20	20: 200V	Drain-Source Voltage, 10:100V
(3)	FET Type	N	N: Single N Channel	P-Channel MOSFET
(4)	Current Rating	20	20: 20A	Continuous Drain Current, T <sub>C</sub> =25°C
(5)	Internal Code	T22FS	Internal Control Reference	Package or Project Reference

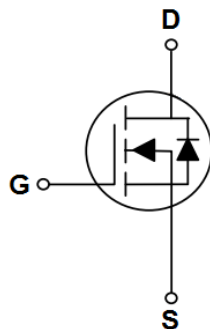
## SURFACE MOUNT MOSFET PACKAGE REFERENCE TABLE

Series	FET Type	Channel/ Feature	Continuous Drain Current (I <sub>D</sub> ) @ 25°C	R <sub>DS(ON)</sub> Max. @ 4.5 V <sub>GS</sub>	Power Dissipation (P <sub>D</sub> ) @25°C	Drain to Source Voltage (V <sub>DS</sub> )
MFT(N)-T22F	N	Single	1 ~ 85A	4.2 ~ 120mΩ	17 ~ 73.5W	60V, 65V, 100V, 150V, 200V, 250V, 500V, 600V, 650V, 700V, 800V, 1000V
MFT(P)-T22F	P	Single	10 ~ 50A	13.5 ~ 170mΩ	17 ~ 52W	-40V, -60V, -100V

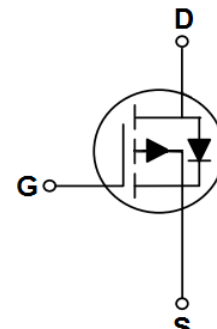
## PIN CONFIGURATION



TO-220F



Single N Type



Single P Type

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## ELECTRICAL CHARACTERISTICS

### MFT(N)-T22F Series – Single N Channel Type

Part Number	V <sub>DS</sub> (V)	I <sub>D</sub> (A)		V <sub>GS</sub> (V)	R <sub>DS(ON)</sub> (mΩ) max. at V <sub>GS</sub>		Q <sub>g</sub> (nC)		CISS (pF)	P <sub>D</sub> (W) @25°C	T <sub>s</sub> , T <sub>J</sub> (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT6N35T22FS	60	35	22	±20	10/12	12/15	39.2	-	2100	42	-55 ~ +150
MFT6N30T22FS	60	30	19	±20	17/21	20/24	28	-	1680	42	-50 ~ +150
MFT6N20T22FS	60	20	13	±20	28/34	33/40	16.6	-	1180	27	-50 ~ +150
MFT6N60T22FS	60	60	38	±20	5.1/6	5.9/7.5	-	32.8	4740	40.3	-55 ~ +150
MFT6N51T22FS	60	51	32.3	±25	6.8/8.2	-	26.9	-	1690	41	-50 ~ +150
MFT6V5N80T22FS	65	80	62	20/-12	2.3/2.8	3.6/4.2	59	-	5180	52	-50 ~ +150
MFT10N85T22FS	100	85	53.8	20/-12	3.8/4.4	4.8/6.5	110	-	6680	66.1	-50 ~ +150
MFT10N75T22FS	100	75	47	20/-12	5.5/6.5	7/9	58.2	-	4570	73.5	-50 ~ +150
MFT10N42T22FS	100	42	26.5	20/-12	7.6/9.2	10.8/14	39.7	-	2550	37	-50 ~ +150
MFT10N16A5T22FS	100	16.5	10.4	±20	40/48	45/55	46	-	2860	29	-50 ~ +150
MFT10N10T22FS	100	10	6.3	±20	90/115	95/120	20	-	1400	26.6	-50 ~ +150
MFT20N30T22FS	200	30	19	±20	19/24	-	238	-	15325	50	-50 ~ +150
MFT20N20T22FS	200	20	13	±30	100/130	-	30	-	1330	25	-55 ~ +150
MFT25N16T22FS	250	16	10.5	±30	165/200	-	28	-	1370	24	-55 ~ +150
MFT50N18T22FS	500	18	11.3	±30	270/320	-	63.2	-	2606	40	-55 ~ +150
MFT50N16T22FS	500	16	10.1	±30	270/380	-	58.2	-	2673	38	-55 ~ +150
MFT50N13T22F1S	500	13	8.2	±30	310/400	-	22.6	-	640	45.5	-55 ~ +150
MFT50N13T22F2S	500	13	8.2	±30	370/500	-	46	-	1590	48	-55 ~ +150
MFT50N14T22FS	500	14	8.9	±30	500/600	-	37.7	-	2150	42	-55 ~ +150
MFT50N9T22F1S	500	9	5.6	±30	620/800	-	28	-	920	36.8	-55 ~ +150
MFT50N12T22FS	500	12	7.6	±30	630/750	-	29.6	-	1720	39	-55 ~ +150
MFT50N9T22F2S	500	9	5.7	±30	630/750	-	27	-	1420	40	-55 ~ +150
MFT50N7T22FS	500	7	4.4	±30	700/850	-	27	-	1420	37	-55 ~ +150
MFT50N5T22FS	500	5	3.1	±30	1100/ 1500	-	17	-	570	28.4	-55 ~ +150
MFT50N4T22FS	500	4	2.5	±30	3000/ 3600	-	10	-	440	28	-55 ~ +150
MFT60N10T22FS	600	10	6.3	±30	560/ 680	-	51	-	1532	44.6	-55 ~ +150
MFT60N12T22FS	600	12	7.6	±30	770/ 840	-	36.8	-	2080	42	-55 ~ +150
MFT60N9T22F1S	600	9	5.7	±30	800/ 1000	-	35.4	-	1036	41.7	-50 ~ +150

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## ELECTRICAL CHARACTERISTICS CONTINUED

### MFT(N)-T22F Series – Single N Channel Type Continued

Part Number	V <sub>DS</sub> (V)	I <sub>D</sub> (A)		V <sub>GS</sub> (V)	R <sub>DS(ON)</sub> (mΩ) max. at V <sub>GS</sub>		Q <sub>g</sub> (nC)		C <sub>ISS</sub> (pF)	P <sub>D</sub> (W) @25°C	T <sub>S</sub> , T <sub>J</sub> (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT60N9T22F2S	600	9	5.7	±30	800/ 1000	-	29	-	1630	39	-55 ~ +150
MFT60N7T22F1S	600	7	4.4	±30	1000/ 1200	-	27.1	-	1430	37	-55 ~ +150
MFT60N4T22F5S	600	4	2.5	±30	1850/ 2200	-	16.5	-	760	28	-55 ~ +150
MFT60N3T22F5S	600	3	1.9	±30	3600/ 4400	-	9.9	-	425	24	-55 ~ +150
MFT60N7T22F2S	600	7	4.4	±30	1000/ 1200	-	29	-	920	36.8	-55 ~ +150
MFT65N10T22F5S	650	10	6.3	±30	570/700	-	54	-	1890	48	-55 ~ +150
MFT65N9T22F5S	650	9	5.6	±30	620/750	-	45	-	1640	28	-55 ~ +150
MFT65N12T22F1S	650	12	7.6	±30	620/750	-	45	-	1640	52	-55 ~ +150
MFT65N12T22F2S	650	12	7.6	±30	820/950	-	38.5	-	2100	40	-55 ~ +150
MFT65N9T22F5S	650	9	5.7	±30	1000/ 1200	-	31	-	1650	37	-55 ~ +150
MFT65N7T22F1S	650	7	4.4	±30	1000/ 1200	-	32	-	1100	28	-55 ~ +150
MFT65N7T22F2S	650	7	4.4	±30	1200/ 1600	-	26.5	-	1400	34	-55 ~ +150
MFT65N4T22F1S	650	4	2.5	±30	2200/ 2600	-	16	-	750	28	-55 ~ +150
MFT65N4T22F2S	650	4	2.5	±30	2200/ 2600	-	15.4	-	518	28	-55 ~ +150
MFT65N2T22F1S	650	2	1.26	±30	3800/ 5000	-	11.2	-	304	22	-55 ~ +150
MFT65N3T22F5S	650	3	1.9	±30	4000/ 5200	-	10.2	-	430	22	-55 ~ +150
MFT65N2T22F2S	650	2	1.3	±30	7500/ 9000	-	7.5	-	230	18	-55 ~ +150
MFT65N1T22F5S	650	1	0.6	±30	95000/ 12000	-	6	-	180	17	-55 ~ +150
MFT70N8T22F5S	700	8	5.06	±30	710/ 1050	-	29	-	2020	45	-55 ~ +150
MFT70N12T22F5S	700	12	7.6	±30	900/ 1100	-	50.4	-	2050	37	-55 ~ +150
MFT70N7T22F5S	700	7	4.4	±30	1500/ 1900	-	64.5	-	1250	31	-55 ~ +150
MFT70N4T22F5S	700	4	2.5	±30	2900/ 3500	-	18.5	-	680	26	-55 ~ +150
MFT70N3T22F5S	700	3	1.9	±30	5800/ 6800	-	11.5	-	330	20	-55 ~ +150
MFT80N8T22F5S	800	8	5.1	±30	1100/ 1400	-	29.3	-	1610	59	-55 ~ +150
MFT80N3T22F5S	800	3	1.9	±30	3360/ 4200	-	19	-	696	32	-55 ~ +150
MFT100N4T22F5S	1000	4	2.22	±30	4200/ 5500	-	25	-	955	38.7	-55 ~ +150

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## ELECTRICAL CHARACTERISTICS CONTINUED

### MFT(P)-T22F Series – Single P Channel Type

Part Number	V <sub>DS</sub> (V)	I <sub>D</sub> (A)		V <sub>GS</sub> (V)	R <sub>DS(ON)</sub> (mΩ) max. at V <sub>GS</sub>		Q <sub>g</sub> (nC)		C <sub>ISS</sub> (pF)	P <sub>D</sub> (W) @25°C	T <sub>s</sub> , T <sub>J</sub> (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT4P32A5T22FS	-40	32.5	20.5	±20	15/17	22/25	-	19	2260	31.3	-50 ~ +150
MFT6P50T22FS	-60	50	31.6	±20	8.6/10.2	10.5/ 13.5	141	-	8620	52	-55 ~ +150
MFT6P16T22FS	-60	16	10	±20	39/48	53/65	22.4	-	1250	19	-50 ~ +150
MFT6P13T22FS	-60	13	8	±25	54/68	72/85	16.4	-	870	17	-50 ~ +150
MFT10P10T22FS	-100	10	6.5	±25	115/140	130/170	40.4	-	2250	48	-55 ~ +150

**Note:**

1. TA=25°C unless otherwise specified. 2. PD is Power Dissipation Derate above 25°C.

\*Specifications subject to change without notice.