

MOSFET

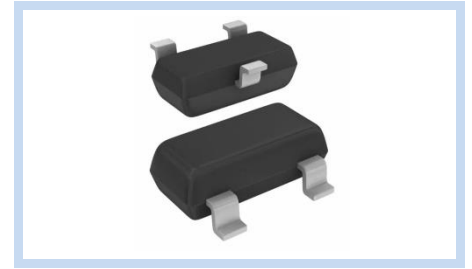
SOT-23-3S Package

MFT-S23S series

MERITEK

FEATURE

- Operating and Storage Temperature: -50°C ~ +150°C
- Fast Switching Characteristics
- Improved dv/dt Capability



PART NUMBERING SYSTEM

MFT **3** **N** **5A1** **S23SS**
 (1) (2) (3) (4) (5)

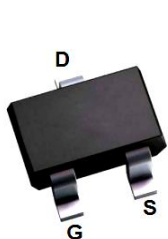


No	Item	Code	Part Description	Series Reference
(1)	Meritek Series	MFT	Meritek MOSFET Series	Surface Mount Type
(2)	Voltage Rating	3	3: 30V	Drain-Source Voltage 10:100V
(3)	FET Type	N	N: Single N Channel	Single P-Channel MOSFET
(4)	Current Rating	5A1	5A1: 5.1A	Continuous Drain Current, T _C =25°C
(5)	Internal Code	S23SS	Internal Control Reference	Package or Project Reference

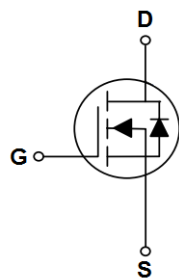
SURFACE MOUNT MOSFET PACKAGE REFERENCE TABLE

Series	FET Type	Channel/ Feature	Continuous Drain Current (I _D) @ 25°C	R _{DS(ON)} Max. @ 4.5 V _{GS}	Power Dissipation (P _D) @25°C	Drain to Source Voltage (V _{DS})
MFT(N)-S23SS	N	Single	0.1 ~ 6.7A	19 ~ 360mΩ	1.56W	20V, 30V, 60V, 100V, 600V
MFT(N)-S23SSE	N	Single/ESD	0.2 ~ 0.3A	300 ~ 8000mΩ	0.31 ~ 0.35W	20V, 50V, 60V, 100V
MFT(P)-S23SS	P	Single	1 ~ 5.8A	33 ~ 950mΩ	1.56W	-20V, -30V, -40V, -60V, -150V
MFT(P)-S23SSE	P	Single/ESD	3.3 ~ 5.8A	33 ~ 5000mΩ	0.9 ~ 1.56W	-20V, -30V, -60V

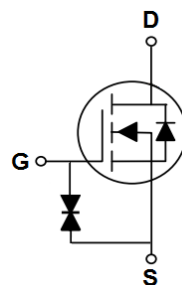
PIN CONFIGURATION



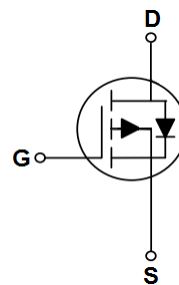
SOT-23-3S



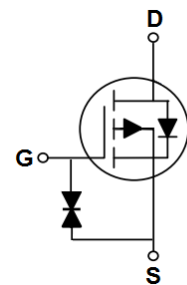
Single N Type



Single N Type ESD



Single P Type



Single P Type ESD

MOSFET

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ELECTRICAL CHARACTERISTICS

MFT(N)-S23SS Series - Single N Channel Type

Part Number	V _{DS} (V)	I _D (A)		V _{GS} (V)	R _{DS(ON)} (mΩ) max. at V _{GS}		Q _g (nC)		CISS (pF)	P _D (W) @25°C	T _s , T _J (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT2N6A7S23SS	20	6.7	4.2	±10	-	15/19	-	5.8	600	1.56	-55 ~ +150
MFT2N5A8S23SS	20	5.8	3.7	±10	-	20/25	-	7.7	535	1.56	-55 ~ +150
MFT2N5S23SS	20	5	3.2	±10	-	30/40	-	5.8	315	1.56	-55 ~ +150
MFT2N4S23SS	20	4	2.5	±10	-	50/65	-	3.6	180	1.56	-55 ~ +150
MFT3N5A3S23SS	30	5.3	3.4	±12	-	27/32	-	8.4	695	1.56	-55 ~ +150
MFT3N6A5S23SS	30	6.5	4.1	±20	20/24	27/34	-	4.1	345	1.56	-55 ~ +150
MFT3N5A5S23SS	30	5.5	3.5	±20	21/25	35/45	-	3.7	293	1.56	-55 ~ +150
MFT3N5A1S23SS	30	5.1	-	±20	29/35	44/55	3.1	-	245	1.56	-50 ~ +150
MFT6N3A2S23SS	60	3.2	2	±20	60/75	70/90	9.3	-	500	1.56	-50 ~ +150
MFT10N2S23SS	100	2	1.3	±20	161/200	169/210	13.4	-	820	1.56	-50 ~ +150
MFT10NS23SS	100	1.4	-	±20	280/350	290/360	9	-	492	1.56	-50 ~ +150
MFT60NA1S23SS	600	0.1	0.06	±20	90000/ 160000	-	2.4	-	32.8	1.56	-55 ~ +150

MFT(N)-S23SSE Series - Single N Channel ESD Type

Part Number	V _{DS} (V)	I _D (A)		V _{GS} (V)	R _{DS(ON)} (mΩ) max. at V _{GS}		Q _g (nC)		CISS (pF)	P _D (W) @25°C	T _s , T _J (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT2N1A45S23SSE	20	1.45	-	±8	-	200/300	-	1	38.2	1	-55 ~ +150
MFT5NA3S23SE	50	0.3	0.2	±20	1200/3500	-	1.1	-	30.6	0.35	-50 ~ +150
MFT6NA3S23SE	60	0.3	0.2	±20	1200/ 1800	1800/ 3000	1.1	-	30.6	0.35	-50 ~ +150
MFT10NA2S23SSE	100	0.2	0.13	±20	3000/ 6000	4000/ 8000	1	-	37.5	0.31	-50 ~ +150

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ELECTRICAL CHARACTERISTICS CONTINUED

MFT(P)-S23SS Series - Single P Channel Type

Part Number	V _{DS} (V)	I _D (A)		V _{GS} (V)	R _{DS(ON)} (mΩ) max. at V _{GS}		Q _g (nC)		CISS (pF)	P _D (W) @25°C	T _s , T _J (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT2P5A8S23SS	-20	5.8	3.7	±10	-	28/33	-	16.1	1440	1.56	-55 ~ +150
MFT2P4A7S23SS	-20	4.7	3	±10	-	40/50	-	9.6	850	1.56	-55 ~ +150
MFT2P4A1S23SS	-20	4.1	2.6	±10	-	52/65	-	6.4	515	1.56	-55 ~ +150
MFT2V5P4A1S23SS	-25	4.1	2.6	±10	-	52/65	-	6.4	515	1.56	-55 ~ +150
MFT2P3A3S23SS	-20	3.3	2.1	±10	-	70/85	-	4.8	350	1.56	-55 ~ +150
MFT2P2A5S23SS	-20	2.5	1.6	±10	-	120/160	-	2.5	150	1.56	-55 ~ +150
MFT3P4A1S231S	-30	4.1	2.6	±12	55/65	65/75	-	8	810	1.56	-55 ~ +150
MFT3P5A1S23SS	-30	5.1	3.2	±20	27/32	38/46	-	8	757	1.56	-55 ~ +150
MFT3P4A1S232S	-30	4.1	2.6	±20	45/55	67/85	-	5.1	560	1.56	-55 ~ +150
MFT3P4S23SS	-30	4	2.5	±20	64/75	105/130	-	5	420	1.56	-55 ~ +150
MFT3P3A3S23SS	-30	3.3	-	±20	75/90	110/140	-	2.5	226	1.56	-55 ~ +150
MFT4P2A9S23SS	-40	2.9	-	±20	55/68	75/100	6.4	-	600	1	-55 ~ +150
MFT6P2S23SS	-60	2	1.25	±20	160/190	200/240	8.2	-	425	1.56	-50 ~ +150
MFT15P1S23SS	-150	1	0.63	±20	650/800	700/950	4.4	-	430	1.56	-50 ~ +150

MFT(P)-S23SSE Series - Single P Channel ESD Type

Part Number	V _{DS} (V)	I _D (A)		V _{GS} (V)	R _{DS(ON)} (mΩ) max. at V _{GS}		Q _g (nC)		CISS (pF)	P _D (W) @25°C	T _s , T _J (°C)
		25°C	100°C		10V	4.5V	10V	4.5V			
MFT2P4S23SES	-20	4	2.4	±8	-	37/43	-	17	1450	0.9	-55 ~ +150
MFT2P1S23SES	-20	1	-	±8	-	440/600	-	1	40	1	-55 ~ +150
MFT2P5A8S23SES	-20	5.8	3.7	±10	-	28/33	-	16.1	1440	1.56	-55 ~ +150
MFT2P3A3S23SES	-20	3.3	2.1	±10	-	70/85	-	4.8	350	1.56	-55 ~ +150
MFT3P3A8S23SES	-30	3.8	2.4	±25	64/75	105/130	-	4.2	460	1.56	-55 ~ +150
MFT6PA3S23SES	-60	0.3	-	±20	2300/ 4000	2900/ 5000	-	-	41	1	-50 ~ +150

Note:

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

*Specifications subject to change without notice.