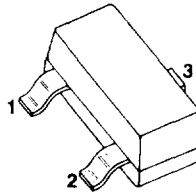


# N-CHANNEL JFETs



**SOT-23/TO-236AB**

## ELECTRICAL CHARACTERISTICS at $T_A = 25^\circ\text{C}$

Device Type	$V_{(BR)GSS}$		$I_{GSS}$		$V_{GS(off)}$		$I_{DSS}$			$g_{fs}$			$C_{ISS}^1$		$C_{RSS}^1$		$r_{DS}$ Max. ( $\Omega$ )	Pinning 1, 2, 3		
					Limits														Conditions	
	Min. @ $I_G$ (V)	Max. @ $V_{DS}$ ( $\mu\text{A}$ )	Min. (nA)	Max. @ $V_{DS}$ (V)	Min. (V)	Max. (V)	$V_{DS}$ (V)	$I_D$ (nA)	Min. (mA)	Max. @ $V_{DS}$ (mA)	(V)	Min. (mS)	Max. @ $V_{DS}$ (mS)	Max. @ $V_{DS}$ (pF)	Max. @ $V_{DS}$ (pF)	Max. @ $V_{DS}$ (V)	Max. @ $V_{DS}$ (V)			
TMPF3819	-25	-1.0	-2.0	-15	—	-8.0	15	2.0	2.0	20	15	2.0	6.5	15	8.0	15	4.0	15	—	DSG
TMPF3821	-50	-1.0	-1.0	-30	—	-4.0	10	1.0	0.5	2.5	15	1.5	4.5	15	6.0	15	2.0	15	—	DSG
TMPF3822	-50	-1.0	-1.0	-30	—	-6.0	10	1.0	2.0	10	15	3.0	6.5	15	6.0	15	2.0	15	—	DSG
TMPF3823	-30	-1.0	-1.0	-20	—	-8.0	10	1.0	4.0	20	15	3.5	6.5	15	6.0	15	2.0	15	—	DSG
TMPF3824	-50	-1.0	-1.0	-30	—	-8.0	15	0.5	4.0	20	15	3.5	6.5	15	6.0	15	2.0	15	250	DSG
TMPF4091	-40	-1.0	-1.0	-20	-5.0	-10	20	1.0	30	—	20	—	—	—	16	20	5.0	$20^3$	30	DSG
TMPF4092	-40	-1.0	-1.0	-20	-2.0	-7.0	20	1.0	15	—	20	—	—	—	16	20	5.0	$20^3$	50	DSG
TMPF4093	-40	-1.0	-1.0	-20	-1.0	-5.0	20	1.0	8.0	—	20	—	—	—	16	20	5.0	$20^3$	80	DSG
TMPF4117	-40	-1.0	-0.01	-20	-0.6	-1.8	10	1.0	0.03	0.09	10	0.07	0.21	10	3.0	10	1.5	10	—	DSG
TMPF4118	-40	-1.0	-0.01	-20	-1.0	-3.0	10	1.0	0.08	0.24	10	0.08	0.25	10	3.0	10	1.5	10	—	DSG
TMPF4119	-40	-1.0	-0.01	-20	-2.0	-6.0	10	1.0	0.2	0.6	10	0.10	0.33	10	3.0	10	1.5	10	—	DSG
TMPF4220	-30	-10	-1.0	-15	—	-4.0	15	1.0	0.5	3.0	15	1.0	4.0	15	6.0	15	2.0	15	—	DSG
TMPF4221	-30	-10	-1.0	-15	—	-6.0	15	1.0	2.0	6.0	15	2.0	5.0	15	6.0	15	2.0	15	—	DSG
TMPF4222	-30	-10	-1.0	-15	—	-8.0	15	1.0	5.0	15	15	2.5	6.0	15	6.0	15	2.0	15	—	DSG
TMPF4223	-30	-10	-1.0	-20	—	-8.0	15	1.0	3.0	18	15	3.0	7.0	15	6.0	15	2.0	15	—	DSG
TMPF4224	-30	-10	-1.0	-20	—	-8.0	15	1.0	2.0	20	15	2.0	7.5	15	6.0	15	2.0	15	—	DSG
TMPF4391	-40	-1.0	-1.0	-20	-4.0	-10	20	1.0	50	150	20	—	—	—	16	20	5.0	$12^3$	30	DSG
TMPF4392	-40	-1.0	-1.0	-20	-2.0	-5.0	20	1.0	25	100	20	—	—	—	16	20	5.0	$7.0^3$	60	DSG
TMPF4393	-40	-1.0	-1.0	-20	-0.5	-3.0	20	1.0	5.0	30	20	—	—	—	16	20	5.0	$5.0^3$	100	DSG
TMPF4416	-30	-1.0	-1.0	-20	—	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	4.5	15	1.2	15	—	DSG
TMPF4416A	-35	-1.0	-1.0	-20	-2.5	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	4.5	15	1.2	15	—	DSG
TMPF4856	-40	-1.0	-1.0	-20	-4.0	-10	15	1.0	50	—	15	—	—	—	18	$10^3$	8.0	$10^3$	25	DSG
TMPF4857	-40	-1.0	-1.0	-20	-2.0	-6.0	15	1.0	20	100	15	—	—	—	18	$10^3$	8.0	$10^3$	40	DSG
TMPF4858	-40	-1.0	-1.0	-20	-0.8	-4.0	15	1.0	8.0	80	15	—	—	—	18	$10^3$	8.0	$10^3$	60	DSG
TMPF4859	-30	-1.0	-1.0	-15	-4.0	-10	15	1.0	50	—	15	—	—	—	18	$10^3$	8.0	$10^3$	25	DSG
TMPF4860	-30	-1.0	-1.0	-15	-2.0	-6.0	15	1.0	20	100	15	—	—	—	18	$10^3$	8.0	$10^3$	40	DSG
TMPF4861	-30	-1.0	-1.0	-15	-0.8	-4.0	15	1.0	8.0	80	15	—	—	—	18	$10^3$	8.0	$10^3$	60	DSG
TMPF5163	-25	-1.0	-1.0	-15	0.4	8.0	15	$10^2$	1.0	40	15	2.0	9.0	15	12	15	3.0	15	—	DSG
TMPF5245	-30	-1.0	-1.0	-20	-1.0	-6.0	15	10	5.0	15	15	4.0	—	15	4.5	15	1.5	15	—	DSG
TMPF5246	-30	-1.0	-1.0	-20	-0.5	-4.0	15	10	1.5	7.0	15	2.5	—	15	4.5	15	1.5	15	—	DSG
TMPF5247	-30	-1.0	-1.0	-20	-1.5	-8.0	15	10	8.0	24	15	4.0	—	15	4.5	15	1.5	15	—	DSG
TMPF5248	-30	-1.0	-5.0	-20	-1.0	-8.0	15	10	4.0	20	15	3.0	—	15	6.0	15	2.0	15	—	DSG
TMPF5358	-40	-1.0	-1.0	-20	-0.5	-3.0	15	100	0.5	1.0	15	1.0	3.0	15	6.0	15	2.0	15	—	DSG
TMPF5359	-40	-1.0	-1.0	-20	-0.8	-4.0	15	100	0.6	1.6	15	1.2	3.6	15	6.0	15	2.0	15	—	DSG
TMPF5360	-40	-1.0	-1.0	-20	-0.8	-4.0	15	100	1.5	3.0	15	1.4	4.2	15	6.0	15	2.0	15	—	DSG

- NOTES: 1)  $V_{GS} = 0\text{ V}$ .  
 2)  $I_D$  in  $\mu\text{A}$ .  
 3)  $V_{DS} = 0\text{ V}$ ,  $V_{GS}$  in volts.  
 4)  $I_D = 10\ \mu\text{A}$ .  
 5)  $I_D = 5.0\ \mu\text{A}$ .  
 6)  $I_D = 1.0\ \text{mA}$ .  
 7)  $I_D = 500\ \mu\text{A}$ .  
 8)  $I_D = 200\ \mu\text{A}$ .

Continued next page...

# N-CHANNEL JFETs

## SOT-23/TO-236AB

### ELECTRICAL CHARACTERISTICS continued

Device Type	V <sub>(BR)GSS</sub>		I <sub>GSS</sub>		V <sub>GS(off)</sub>				I <sub>DSS</sub>			g <sub>fs</sub>			C <sub>ISS</sub> <sup>1</sup>		C <sub>RSS</sub> <sup>1</sup>		r <sub>DS</sub> Max.	Pinning 1, 2, 3
					Limits		Conditions													
	Min.	@ I <sub>G</sub>	Max.	@ V <sub>DS</sub>	Min.	Max.	V <sub>DS</sub>	I <sub>D</sub>	Min.	Max.	@ V <sub>DS</sub>	Min.	Max.	@ V <sub>DS</sub>	Max.	@ V <sub>DS</sub>	Max.	@ V <sub>DS</sub>		
(V)	(μA)	(nA)	(V)	(V)	(V)	(V)	(nA)	(mA)	(mA)	(V)	(mS)	(mS)	(V)	(pF)	(V)	(pF)	(V)	(Ω)		
TMPF5361	-40	-1.0	-1.0	-20	-1.0	-6.0	15	100	2.5	5.0	15	1.5	4.5	15	6.0	15	2.0	15	—	DSG
TMPF5362	-40	-1.0	-1.0	-20	-2.0	-7.0	15	100	4.0	8.0	15	2.0	5.5	15	6.0	15	2.0	15	—	DSG
TMPF5363	-40	-1.0	-1.0	-20	-2.5	-8.0	15	100	7.0	14	15	2.5	6.0	15	6.0	15	2.0	15	—	DSG
TMPF5364	-40	-1.0	-1.0	-20	-2.5	-8.0	15	100	9.0	18	15	2.7	6.5	15	6.0	15	2.0	15	—	DSG
TMPF5457	-25	-10	-1.0	-15	-0.5	-6.0	15	10	1.0	5.0	15	1.0	5.0	15	7.0	15	3.0	15	—	DSG
TMPF5458	-25	-10	-1.0	-15	-1.0	-7.0	15	10	2.0	9.0	15	1.5	5.5	15	7.0	15	3.0	15	—	DSG
TMPF5459	-25	-10	-1.0	-15	-2.0	-8.0	15	10	4.0	16	15	2.0	6.0	15	7.0	15	3.0	15	—	DSG
TMPF5484	-25	-1.0	-1.0	-20	-0.3	-3.0	15	10	1.0	5.0	15	3.0	6.0	15	5.0	15	1.0	15	—	DSG
TMPF5485	-25	-1.0	-1.0	-20	-0.5	-4.0	15	10	4.0	10	15	3.5	7.0	15	5.0	15	1.0	15	—	DSG
TMPF5486	-25	-1.0	-1.0	-20	-2.0	-6.0	15	10	8.0	20	15	4.0	8.0	15	5.0	15	1.2	15	—	DSG
TMPF5638	-30	-10	-1.0	-15	—	-12	15	1.0	50	—	20	—	—	—	10	-12 <sup>3</sup>	4.0	-12 <sup>3</sup>	30	DSG
TMPF5639	-30	-10	-1.0	-15	—	-8.0	15	1.0	25	—	20	—	—	—	10	-12 <sup>3</sup>	4.0	-12 <sup>3</sup>	60	DSG
TMPF5640	-30	-10	-1.0	-15	—	-6.0	15	1.0	5.0	—	20	—	—	—	10	-12 <sup>3</sup>	4.0	-12 <sup>3</sup>	100	DSG
TMPF5653	-30	-10	-1.0	-15	—	-12	15	1.0	40	—	20	—	—	—	10	-12 <sup>3</sup>	3.5	-12 <sup>3</sup>	50	DSG
TMPF5654	-25	-10	-1.0	-15	—	-8.0	15	1.0	15	—	20	—	—	—	10	8.0 <sup>3</sup>	3.5	8.0 <sup>3</sup>	100	DSG
TMPF5668	-25	-10	-1.0	-15	-0.2	-4.0	15	10	1.0	5.0	15	1.0	—	15	7.0	15	3.0	15	—	DSG
TMPF5669	-25	-10	-1.0	-15	-1.0	-6.0	15	10	4.0	10	15	1.6	—	15	7.0	15	3.0	15	—	DSG
TMPF5670	-25	-10	-1.0	-15	-2.0	-8.0	15	10	8.0	20	15	2.0	—	15	7.0	15	3.0	15	—	DSG
TMPF5949	-30	-1.0	-1.0	-15	-3.0	-7.0	15	100	12	18	15	3.0	—	15	6.0	15	2.0	15	—	DSG
TMPF5950	-30	-1.0	-1.0	-15	-2.5	-6.0	15	100	10	15	15	3.0	—	15	6.0	15	2.0	15	—	DSG
TMPF5951	-30	-1.0	-1.0	-15	-2.0	-5.0	15	100	7.0	13	15	3.0	—	15	6.0	15	2.0	15	—	DSG
TMPF5952	-30	-1.0	-1.0	-15	-1.3	-3.5	15	100	4.0	8.0	15	1.0	—	15	6.0	15	2.0	15	—	DSG
TMPF5953	-30	-1.0	-1.0	-15	-0.8	-3.0	15	100	2.5	5.0	15	1.0	—	15	6.0	15	2.0	15	—	DSG
TMPFBC264A	-30	-1.0	-1.0	-20	-0.5	—	15	10	2.0	4.5	15	2.5	—	15	4.0	15	1.2	15	—	DSG
TMPFBC264B	-30	-1.0	-1.0	-20	-0.5	—	15	10	3.5	6.5	15	3.0	—	15	4.0	15	1.2	15	—	DSG
TMPFBC264C	-30	-1.0	-1.0	-20	-0.5	—	15	10	5.0	8.0	15	3.5	—	15	4.0	15	1.2	15	—	DSG
TMPFBC264D	-30	-1.0	-1.0	-20	-0.5	—	15	10	7.0	12	15	4.0	—	15	4.0	15	1.2	15	—	DSG
TMPFBF244A	-30	-1.0	-5.0	-20	-0.5	-8.0	15	10	2.0	6.5	15	3.0	6.5	15	—	—	—	—	—	DSG
TMPFBF244B	-30	-1.0	-5.0	-20	-0.5	-8.0	15	10	6.0	15	15	3.0	6.5	15	—	—	—	—	—	DSG
TMPFBF244C	-30	-1.0	-5.0	-20	-0.5	-8.0	15	10	12	25	15	3.0	6.5	15	—	—	—	—	—	DSG
TMPFBF246A	-25	-1.0	-5.0	-15	-0.6	14.5	15	10	30	80	15	—	—	—	—	—	—	—	65	DSG
TMPFBF246B	-25	-1.0	-5.0	-15	-0.6	14.5	15	10	60	140	15	—	—	—	—	—	—	—	50	DSG
TMPFBF246C	-25	-1.0	-5.0	-15	-0.6	14.5	15	10	110	250	15	—	—	—	—	—	—	—	35	DSG
TMPFBF256A	-30	-1.0	-5.0	-20	-0.5	-7.5	15	10	3.0	7.0	15	4.5	—	15	4.5	15	1.2	15	—	DSG
TMPFBF256B	-30	-1.0	-5.0	-20	-0.5	-7.5	15	10	6.0	13	15	4.5	—	15	4.5	15	1.2	15	—	DSG
TMPFBF256C	-30	-1.0	-5.0	-20	-0.5	-7.5	15	10	11	18	15	4.5	—	15	4.5	15	1.2	15	—	DSG
TMPFJ111	-35	-1.0	-1.0	-15	-3.0	-10	5.0	1.0	20	—	15	—	—	—	16	15	5	-10 <sup>3</sup>	30	DSG
TMPFJ112	-35	-1.0	-1.0	-15	-1.0	-5.0	5.0	1.0	5.0	—	15	—	—	—	16	15	5	-10 <sup>3</sup>	50	DSG
TMPFJ112A	-40	-1.0	-0.2	-1.0	-2.0	-7.0	5.0	1.0	15	—	15	—	—	—	16	15	5	-10 <sup>3</sup>	50	DSG
TMPFJ113	-35	-1.0	-1.0	-15	—	-3.0	5.0	1.0	2.0	—	15	—	—	—	16	15	5	-10 <sup>3</sup>	100	DSG

- NOTES: 1) V<sub>GS</sub> = 0 V.  
 2) I<sub>D</sub> in μA.  
 3) V<sub>DS</sub> = 0 V, V<sub>GS</sub> in volts.  
 4) I<sub>D</sub> = 10 μA.  
 5) I<sub>D</sub> = 5.0 mA.  
 6) I<sub>D</sub> = 1.0 mA.  
 7) I<sub>D</sub> = 500 μA.  
 8) I<sub>D</sub> = 200 μA.

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# N-CHANNEL JFETs

## SOT-23/TO-236AB

### ELECTRICAL CHARACTERISTICS continued

Device Type	V <sub>(BR)GSS</sub>		I <sub>GSS</sub>		V <sub>GS(off)</sub>				I <sub>DSS</sub>			g <sub>fs</sub>			C <sub>ISS</sub> <sup>1</sup>		C <sub>RSS</sub> <sup>1</sup>		r <sub>DS</sub> Max.	Pinning 1, 2, 3
					Limits		Conditions													
	Min. (V)	@ I <sub>G</sub> (μA)	Max. (nA)	@ V <sub>DS</sub> (V)	Min. (V)	Max. (V)	V <sub>DS</sub> (V)	I <sub>D</sub> (nA)	Min. (mA)	Max. (mA)	@ V <sub>DS</sub> (V)	Min. (mS)	Max. (mS)	@ V <sub>DS</sub> (V)	Max. (pF) @ V <sub>DS</sub> (V)	Max. (pF) @ V <sub>DS</sub> (V)	(Ω)			
TMPFJ113A	-40	-1.0	-0.2	-1.0	-1.0	-5.0	5.0	1.0	8.0	—	15	—	—	—	16	15	5	-10 <sup>3</sup>	80	DSG
TMPFJ201	-40	-1.0	-1.0	-2.0	-0.3	-1.5	20	10	0.2	1.0	20	0.5	—	20	4.0	20	1.0	20	—	DSG
TMPFJ202	-40	-1.0	-1.0	-2.0	-0.8	-4.0	20	10	0.9	4.5	20	1.0	—	20	4.0	20	1.0	20	—	DSG
TMPFJ203	-40	-1.0	-1.0	-2.0	-2.0	-1.0	20	10	4.0	20	20	1.5	—	20	6.0	20	1.2	20	—	DSG
TMPFJ230	-40	-1.0	-1.0	-3.0	-0.5	-3.0	20	1 <sup>2</sup>	0.7	3.0	20	1.0	3.5	20	—	—	—	—	—	DSG
TMPFJ231	-40	-1.0	-1.0	-3.0	-1.5	-5.0	20	1 <sup>2</sup>	2.0	6.0	20	1.5	4.0	20	—	—	—	—	—	DSG
TMPFJ232	-40	-1.0	-1.0	-3.0	-3.0	-6.0	20	1 <sup>2</sup>	5.0	10	20	2.5	5.0	20	—	—	—	—	—	DSG
TMPFJ304	-30	-1.0	-1.0	20	-2.0	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	—	—	—	—	—	DSG
TMPFJ305	-30	-1.0	-1.0	-20	-0.5	-3.0	15	1.0	1.0	8.0	15	3.0	—	15	—	—	—	—	—	DSG
TMPFJ308	-25	-1.0	-1.0	-15	-1.0	-6.5	10	1.0	12	60	10	8.0	—	10 <sup>4</sup>	7.5	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	—	DSG
TMPFJ309	-25	-1.0	-1.0	-15	-1.0	-4.0	10	1.0	12	30	10	10	—	10 <sup>4</sup>	7.5	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	—	DSG
TMPFJ310	-25	-1.0	-1.0	-15	-2.0	-6.5	10	1.0	24	60	10	8.0	—	10 <sup>4</sup>	7.5	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	—	DSG
TMPFU308	-25	-1.0	-1.0	-15	-1.0	-6.0	10	1.0	12	60	10	—	—	—	7.5	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	—	DSG
TMPFU309	-25	-1.0	-1.0	-15	-1.0	-4.0	10	1.0	12	30	10	—	—	—	7.5	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	—	DSG
TMPFU310	-25	-1.0	-1.0	-15	-2.5	-6.0	10	1.0	24	60	10	—	—	—	7.5	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	—	DSG
TMPFU1897	-40	-1.0	-1.0	-20	-5.0	-10	20	1.0	30	—	20	—	—	—	16	20	3.5	20	30	DSG
TMPFU1898	-40	-1.0	-1.0	-20	-2.0	-7.0	20	1.0	15	—	20	—	—	—	16	20	3.5	20	50	DSG
TMPFU1899	-40	-1.0	-1.0	-20	-1.0	-5.0	20	1.0	8.0	—	20	—	—	—	16	20	3.5	20	80	DSG

- NOTES: 1) V<sub>GS</sub> = 0 V.  
2) I<sub>D</sub> in μA.  
3) V<sub>DS</sub> = 0 V, V<sub>GS</sub> in volts.  
4) I<sub>D</sub> = 10 μA  
5) I<sub>D</sub> = 5.0 μA  
6) I<sub>D</sub> = 1.0 mA  
7) I<sub>D</sub> = 500 μA  
8) I<sub>D</sub> = 200 μA