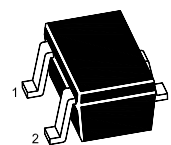
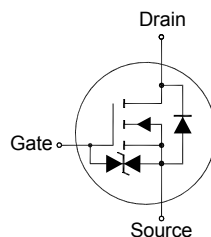


MMFTN3018W

Silicon N-Channel MOSFET

Features

- Low on-resistance
- Fast switching speed
- Low voltage



1. Gate 2. Source 3. Drain
SOT-323 Plastic Package

Applications

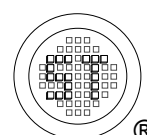
- Interfacing, switching

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Drain Source Voltage	V_{DSS}	30	V
Gate Source Voltage	V_{GSS}	± 20	V
Drain Current	I_D	100	mA
Drain Current - Pulsed ¹⁾	I_{DP}	400	mA
Total Power Dissipation ²⁾	P_{tot}	200	mW
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

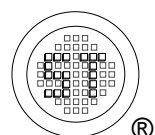
¹⁾ $P_w \leq 10 \mu\text{s}$, duty cycle $\leq 1\%$

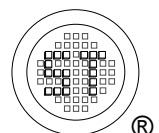
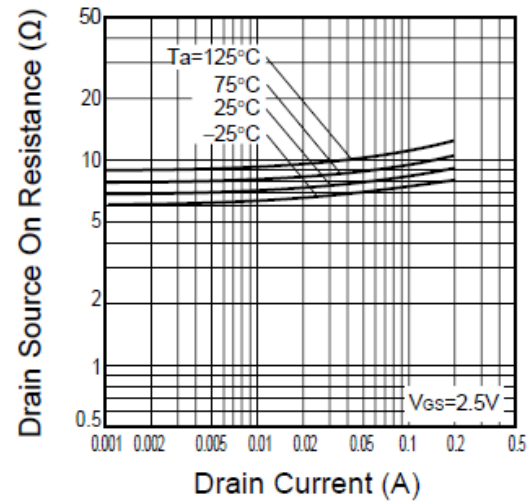
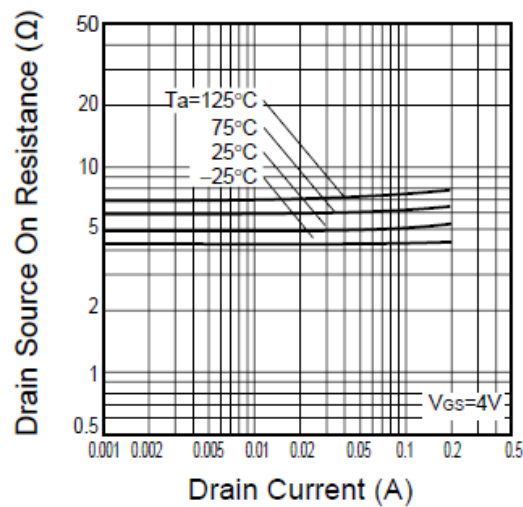
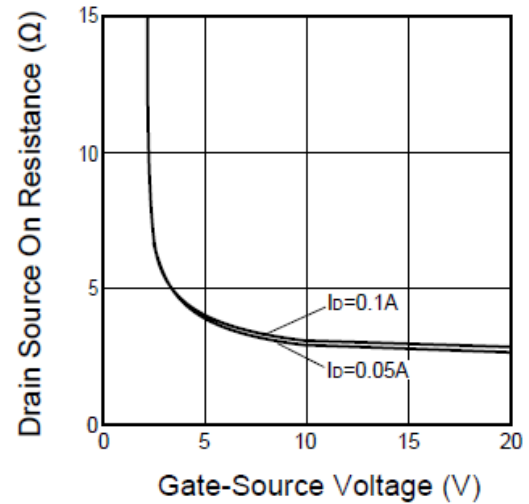
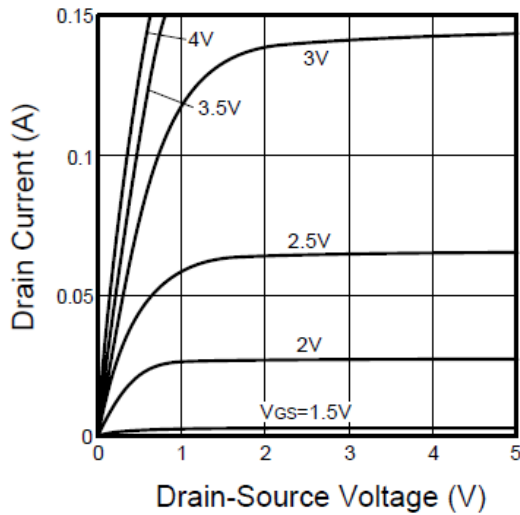
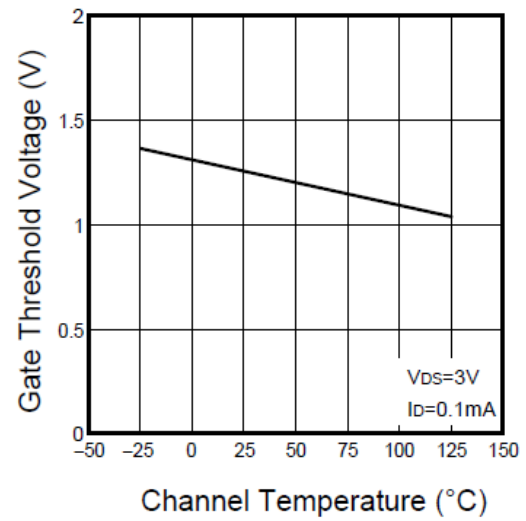
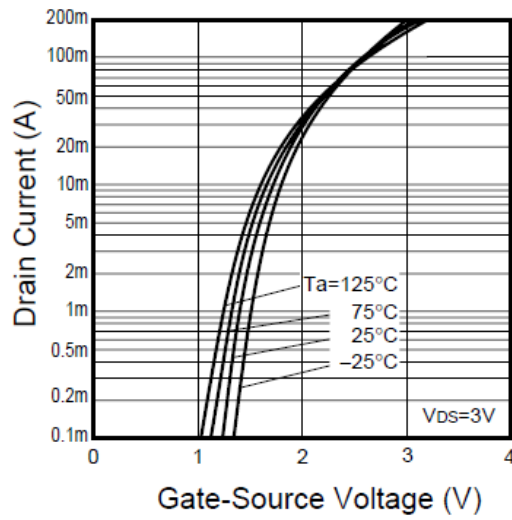
²⁾ With each pin mounted on the recommended lands



Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

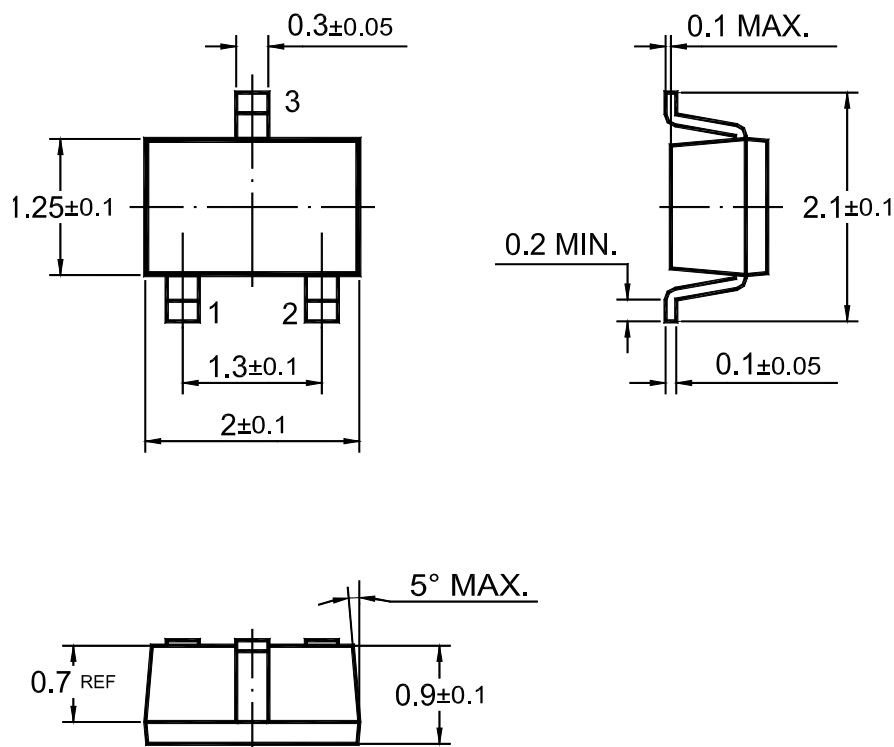
Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain Source Breakdown Voltage at $I_D = 10\text{ }\mu\text{A}$	$V_{(BR)DSS}$	30	-	-	V
Zero Gate Voltage Drain Current at $V_{DS} = 24\text{ V}$	I_{DSS}	-	-	1	μA
Gate Source Leakage Current at $V_{GS} = \pm 20\text{ V}$	I_{GSS}	-	-	± 1	μA
Gate Source Threshold Voltage at $V_{DS} = 3\text{ V}$, $I_D = 100\text{ }\mu\text{A}$	$V_{GS(th)}$	0.8	-	1.5	V
Static Drain Source On-State Resistance at $V_{GS} = 4\text{ V}$, $I_D = 10\text{ mA}$ at $V_{GS} = 2.5\text{ V}$, $I_D = 1\text{ mA}$	$R_{DS(on)}$	- -	- -	8 13	Ω
Forward Transfer Admittance at $V_{DS} = 3\text{ V}$, $I_D = 10\text{ mA}$	$ y_{fs} $	20	-	-	mS
Input Capacitance at $V_{DS} = 5\text{ V}$, $f = 1\text{ MHz}$	C_{iss}	-	13	-	pF
Output Capacitance at $V_{DS} = 5\text{ V}$, $f = 1\text{ MHz}$	C_{oss}	-	9	-	pF
Reverse Transfer Capacitance at $V_{DS} = 5\text{ V}$, $f = 1\text{ MHz}$	C_{rss}	-	4	-	pF
Turn-On delayTime at $V_{DD} = 5\text{ V}$, $I_D = 10\text{ mA}$, $V_{GS} = 5\text{ V}$, $R_L = 500\text{ }\Omega$, $R_G = 10\text{ }\Omega$	$t_{d(on)}$	-	15	-	ns
Turn-Off Delay Time at $V_{DD} = 5\text{ V}$, $I_D = 10\text{ mA}$, $V_{GS} = 5\text{ V}$, $R_L = 500\text{ }\Omega$, $R_G = 10\text{ }\Omega$	$t_{d(off)}$	-	80	-	ns
Rise Time at $V_{DD} = 5\text{ V}$, $I_D = 10\text{ mA}$, $V_{GS} = 5\text{ V}$, $R_L = 500\text{ }\Omega$, $R_G = 10\text{ }\Omega$	t_r	-	35	-	ns
Turn-off delay time at $V_{DD} = 5\text{ V}$, $I_D = 10\text{ mA}$, $V_{GS} = 5\text{ V}$, $R_L = 500\text{ }\Omega$, $R_G = 10\text{ }\Omega$	t_f	-	80	-	ns



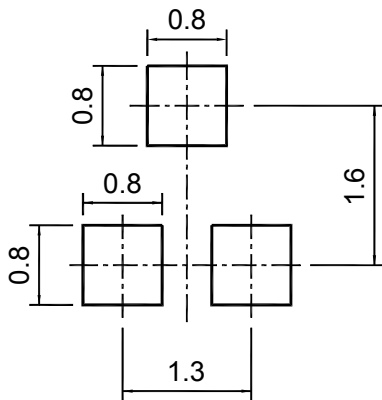


Package Outline(Dimensions in mm)

SOT-323



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

