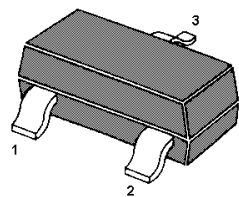
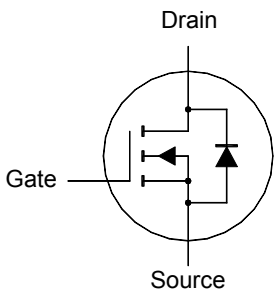


MMFTN123A

N-Channel Logic Level Enhancement Mode Field Effect Transistor



1. Gate 2. Source 3. Drain
TO-236 Plastic Package



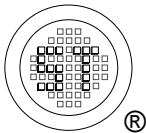
Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	100	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current	I_D	190	mA
Peak Drain Current	I_{DM}	770	mA
Total Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance from Junction to Ambient ¹⁾	R_{thj-a}	250	K/W

¹⁾ Device mounted on a printed-circuit board.



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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage at $I_D = 250\text{ }\mu\text{A}$	$V_{(BR)DSS}$	100	-	-	V
Gate-Source Threshold Voltage at $V_{GS} = V_{DS}$, $I_D = 1\text{ mA}$	V_{GSth}	0.8	-	1.8	V
Drain-Source Leakage Current at $V_{DS} = 100\text{ V}$	I_{DSS}	-	-	1	μA
Gate-Source Leakage Current at $V_{GS} = \pm 20\text{ V}$	I_{GSS}	-	-	± 50	nA
Drain-Source On-State Resistance at $V_{GS} = 10\text{ V}$, $I_D = 190\text{ mA}$ at $V_{GS} = 4.5\text{ V}$, $I_D = 150\text{ mA}$	$R_{DS(ON)}$	- -	- -	6 10	Ω
Input Capacitance at $V_{DS} = 25\text{ V}$, $f = 1\text{ MHz}$	C_{iss}	-	-	20.9	pF
Output Capacitance at $V_{DS} = 25\text{ V}$, $f = 1\text{ MHz}$	C_{oss}	-	-	4.5	pF
Reverse Transfer Capacitance at $V_{DS} = 25\text{ V}$, $f = 1\text{ MHz}$	C_{rss}	-	-	3.1	pF
Turn-On Delay Time at $V_{DD} = 50\text{ V}$, $I_D = 190\text{ mA}$, $V_{GS} = 10\text{ V}$, $R_G = 6\text{ }\Omega$	$t_{d(on)}$	-	-	3.5	ns
Turn-On Rise Time at $V_{DD} = 50\text{ V}$, $I_D = 190\text{ mA}$, $V_{GS} = 10\text{ V}$, $R_G = 6\text{ }\Omega$	t_r	-	-	4.6	ns
Turn-Off Delay Time at $V_{DD} = 50\text{ V}$, $I_D = 190\text{ mA}$, $V_{GS} = 10\text{ V}$, $R_G = 6\text{ }\Omega$	$t_{d(off)}$	-	-	11.1	ns
Turn-Off Fall Time at $V_{DD} = 50\text{ V}$, $I_D = 190\text{ mA}$, $V_{GS} = 10\text{ V}$, $R_G = 6\text{ }\Omega$	t_f	-	-	33	ns

