

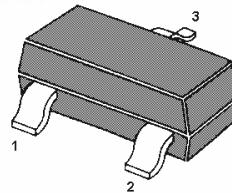
MMFTN20

查询"MMFTN20"供应商

N-Channel Enhancement Vertical D-MOS Transistor

Features

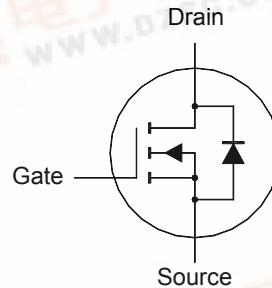
- High-speed switching
- No secondary breakdown



1. Gate 2. Source 3. Drain
SOT-23 Plastic Package

Applications

- Thin and thick film circuits
- General purpose fast switching applications



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

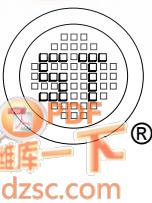
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	50	V
Gate-Source Voltage (open drain)	V_{GSO}	± 20	V
Drain Current	I_D	100	mA
Peak Drain Current	I_{DM}	300	mA
Total Power Dissipation	$P_{tot}^{(1)}$	300	mW
	$P_{tot}^{(2)}$	250	cmW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 65 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	430 ⁽¹⁾	K/W
	$R_{\theta JA}$	500 ⁽²⁾	K/W

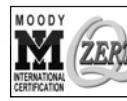
⁽¹⁾ Device mounted on a ceramic substrate 10 X 8 X 0.7 mm.

⁽²⁾ Device mounted on a printed-circuit board.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

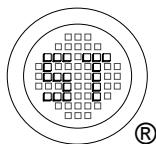
Dated: 01/06/2006

MMFTN20

[查询"MMFTN20"供应商](#)

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

Parameter	Symbol	Min.	Max.	Unit
Drain-Source Breakdown Voltage at $I_D = 10 \mu\text{A}$	$V_{(\text{BR})\text{DSS}}$	50	-	V
Drain-Source Leakage Current at $V_{DS} = 40 \text{ V}$	I_{DSS}	-	1	μA
Gate-Source Leakage Current at $V_{GS} = \pm 20 \text{ V}$	I_{GSS}	-	± 100	nA
Gate-Source Threshold Voltage at $V_{DS} = V_{GS}, I_D = 1 \text{ mA}$	$V_{GS(\text{th})}$	0.4	1.8	V
Drain-Source On-State Resistance at $V_{GS} = 10 \text{ V}, I_D = 100 \text{ mA}$ at $V_{GS} = 5 \text{ V}, I_D = 100 \text{ mA}$ at $V_{GS} = 2.5 \text{ V}, I_D = 10 \text{ mA}$	$R_{DS(\text{on})}$	- - -	15 20 30	Ω
Forward Transfer Admittance at $V_{DS} = 10 \text{ V}, I_D = 100 \text{ mA}$	$ y_{fs} $	40	-	mS
Input Capacitance at $V_{DS} = 10 \text{ V}, f = 1 \text{ MHz}$	C_{iss}	-	15	pF
Output Capacitance at $V_{DS} = 10 \text{ V}, f = 1 \text{ MHz}$	C_{oss}	-	15	pF
Reverse Transfer Capacitance at $V_{DS} = 10 \text{ V}, f = 1 \text{ MHz}$	C_{rss}	-	5	pF
Turn-On Time at $V_{GS} = 0 \text{ to } 10 \text{ V}, V_{DD} = 20 \text{ V}, I_D = 100 \text{ mA}$	$t_{(\text{on})}$	-	5	ns
Turn-Off Time at $V_{GS} = 10 \text{ to } 0 \text{ V}, V_{DD} = 20 \text{ V}, I_D = 100 \text{ mA}$	$t_{(\text{off})}$	-	10	ns



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002 ISO 14001:2004 ISO 9001:2000
Certificate No. 05103 Certificate No. 7116 Certificate No. 0506098

Dated: 01/06/2006